Scout Report sent out ☐

Noted in the NID File ☐

Location map pinned ☐

Approval or Disapproval Letter ☐

Date Completed, P. & A. or operations suspended ☐

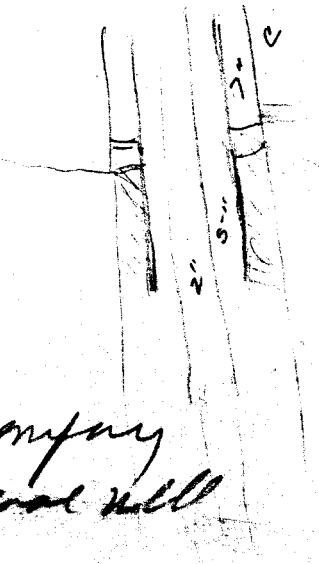
Pin changed on location map ☐

Affidavit and Record of A & P ☐

Water Shut-Off Test ☐

Gas-Oil Ratio Test ☐

Well Log Filed ☐



Grade Idaho Canton Company
to be used for original well

SUBURBAN GAS SERVICE - UNDERGROUND STORAGE OF LIQUEFIED PETROLEUM

(2-5-60)

FILE NOTATIONS

Entered in NID File ✓
Entered On S R Sheet ✓
Location Map Pinned ✓
Card Indexed ✓
I W R for State or Fee Land ____

Checked by Chief ____
Copy NID to Field Office ✓
Approval Letter ____
Disapproval Letter ____

COMPLETION DATA:

Date Well Completed ____
OW____ WW____ TA____
GW____ OS____ PA____

Location Inspected ____
Bond released State of Fee Land ____

LOGS FILED

Driller's Log____
Electric Logs (No.)____
E____ I____ E-I____ GR____ GR-N____ Micro____
Lat____ Mi-L____ Sonic____ Others____

SUBURBAN GAS SERVICE, INC.
2021 NORTH TOWNE AVENUE
POMONA, CALIFORNIA

January 29, 1960

Office of the State Engineer
403 Capitol
Salt Lake City, Utah

Attention: Mr. Cridden

Gentlemen:

I refer to my letter of January 29, 1960, addressed to Mr. Thatcher of the Utah Water Pollution Control Board, a carbon copy of which was sent to you.

It is my understanding that joint permission from your office and from Mr. Thatcher's office will be forthcoming, insofar as brine disposal to subterranean water sands is concerned.

In addition to the above authorization I would like permission from you to take a small amount of construction water from the Colorado River three miles north of Moab. The point of diversion of water would be 500 feet west of Highway 160 bridge and on the south bank of the Colorado River.

Approximately 0.5 sec. ft. of water will be taken over a period of six months. A pump will be set on the river bank and will move water through 2½" pipe to the point of consumption about 3300' to the south.

I would certainly appreciate your early and favorable consideration of this request.

Yours very truly,

SUBURBAN GAS SERVICE, INC.

Neal E. Van Fossan,
Engineer

NEVF:cs

SUBURBAN GAS SERVICE, INC.
2021 NORTH TOWNE AVENUE
POMONA, CALIFORNIA

January 29, 1960

Lynn M. Thatcher
Executive Secretary
Utah Water Pollution Control Board
45 Fort Douglas Boulevard
Salt Lake City 13, Utah

Dear Sir:

Suburban Gas Service, Inc. respectfully requests authority to dispose of salt water brines in subsurface brackish water sands near MOAB, UTAH. A plat is attached showing area of disposal.

A resume of the proposed operation, which results in the production of these brines, is attached.

The proposed subterranean storage facility cannot be constructed unless some practical means of brine disposal can be developed. Dumping of brine into the COLORADO RIVER has not been viewed with favor by governmental authorities. Subterranean disposal seems to be the only solution to our disposal problems.

Conservation of natural resources will be effected by the storage operation, the operation will produce revenues for the State, and the general public will be benefitted because of a stabilization of supply of materials stored for their consumption as well as the business brought into the local area of operation.

Massive salt formations lie under the MOAB Valley. These formations have been "extruded" from great depths by geological processes into long, thick ridges protruding through the overlaying formations, with the top of the ridge being some 1200' to 1500' below the ground surface. Various water bearing formations were penetrated by this extrusive salt mass; since these water sands are in contact with the salt body, the water contained within them is now brackish. This water is of course unfit for domestic or industrial consumption.

The subsurface location of these sands will be determined by running Electrical Surveying instruments into the bore hole of the storage well. A bore hole will then be drilled from the surface to and through the brackish water sands. A casing string will be run and cemented back to the surface. This casing isolates all the fresh water sands from the brackish water sands (i.e., from the brine disposal area). The casing is slotted across the brackish water sands and a tubing string is run to a point inside this slotted area.

A brine disposal pump picks water up from the brine disposal pit, forces it down the tubing, thence into the brackish water sands. These sands are isolated from the overlying fresh water sands by intervening impervious formations and/or gravity separation. The sands' ability to "take water" is generally of great magnitude because of its "pore space"

and tremendous cubage in the brackish water reservoir. It is estimated that some 90-100 ac. ft. of brine will be disposed of within a period of six months. It is anticipated that brackish water sands 30' to 50' in thickness will exist under the area of operations.

This brine disposal method (as well as industrial liquid waste disposal) is used in numerous areas of the United States, particularly in the Gulf Coast and West Texas areas.

It would be greatly appreciated if permission would be granted at the earliest practicable date to dispose of brines by the above procedures. The storage facility is needed for use in the early part of July.

If you have any questions please do not hesitate to call on me.

Very truly yours,

Neal E. Van Fossan,
Engineer

NEVF:cs

cc: Office of State Engineer
State of Utah
403 Capitol
Salt Lake City, Utah

OUTLINE OF CONSTRUCTION AND OPERATING PROCEDURES SUBTERRANEAN STORAGE TERMINAL MOAB, UTAH

Suburban Gas Service, Inc. desires to develop, by processes hereinafter described, a subterranean chamber for the storage of Liquefied Petroleum Gases, commonly known as "bottled gas" and hereafter referred to as L.P.G. The Chamber is to be developed north of Moab.

Moderate amounts of fresh water are required in the development of this storage chamber, and an equal amount of salt water brine is produced.

A massive strata of salt lies under the Moab Valley. This salt section is at an approximate depth of 1500' below the ground surface, and is roughly 8000' thick. The salt exists in a glass like state and is completely impervious (i.e. is non-porous and does not contain channels or fissures).

The above mentioned subterranean chamber is produced by the solution removal of the "in place" rock salt, by "washing" a certain planned section of the salt with fresh water. Continued controlled dissolving of the salt produces a greatly elongated, vertical chamber of a shape similar to a carrot (large end down).

It takes approximately six barrels of fresh water to remove (dissolve) one barrel of rock salt (i.e. to develop one barrel of storage space). The projected capacity of the Chamber is 100,000 barrels (4,200,000 gallons) and therefore approximately 600,000 barrels of fresh water is required and a like amount of brine is produced. It is possible that the Chamber will be "washed" to 75,000 bbl. capacity in 1960 and an additional 25,000 bbl. developed in 1961. The chamber will be washed at an approximate rate of 200 g.p.m. (0.5 sec. ft.) for a period of six months and brine disposal will be of the same magnitude and for the same period.

After the chamber has been developed to the above mentioned capacity, very little, if any, surplus brine will be produced, and the only fresh water requirement would be for operations at 20,000 gal/day. A shallow low rate water well will be drilled for this purpose.

The sequence of events involved, in developing a storage chamber of this type, are:

1. Drill a bore hole, with normal oil field procedures, to a point below the fresh water sand in the area, set and cement a casing string.

2. Extend bore hole (at reduced diameter), by drilling through first casing string, to a point approximately 200' below the top of the salt. Set and cement a casing string from the surface to this point. This casing is cemented on the outside, back to the surface, and completely isolates the future storage chamber from all water sands and whatever other porous zones that might exist above the salt section.

3. Extend the bore hole (at reduced diameter), by drilling through the second casing string, to a total depth of approximately

2,500'. The complete bore hole will then have an exposed salt face (in the bore hole) from 1,700' to 2,500'.

4. A "Protection Liner" is run and the end set at approximately 1,900'. This liner is not cemented, but instead is "hung" from the well head arrangement at the ground surface. L.P.G. is pumped between this liner, the second casing string and the exposed salt face from 1,700' to 1,900'. The L.P.G. acts as a "blanket" to keep fresh water from dissolving any salt near the second casing string "seat". The bore hole salt face between 1,900' and 2,500' remains exposed for the "washing" phase.

5. A tubing string is run to total depth of the bore hole. The tubing is "hung" in the well head arrangement.

Fresh water is then pumped down the tubing, circulates past the exposed salt face, dissolves the salt, and the resultant brine returns through the liner to the surface of the ground and is dumped to a 100,000 bbl. brine storage pit and thence is pumped to a disposal well.

The surface installations, supporting the storage chamber, consist of the equipment and piping necessary to unload the transport trucks which haul L.P.G. from point of manufacture to the storage point, and a pump to inject the L.P.G. down the casing which forces brine up the tubing to the surface storage pit. When the L.P.G. is to be recovered from the storage chamber a pump forces water down the tubing, the L.P.G. flows up the casing (because of displacement) to storage tanks and thence to transport trucks which haul it to market.

Salt is not soluble in L.P.G.

SUBURBAN GAS SERVICE, INC.
2021 NORTH TOWNE AVENUE
POMONA, CALIFORNIA

February 1, 1960

Utah Oil & Gas Conservation Commission
510 Newhouse Building
Salt Lake City, Utah

Attention: Mr. C. B. Feight, Executive Secretary

Gentlemen:

The Suburban Gas Service, Inc. desires to construct and use a subterranean chamber for the storage of Liquefied Petroleum Gases (hereafter referred to as L.P.G.) in the Moab Valley, approximately two miles north of Moab, on Highway 160.

A resume of the processes involved in the construction of the subterranean storage chamber and the operation thereof is attached.

It is the nature of the L.P.G. industry that products must be manufactured at an approximately even rate throughout the year. The major portion of these products are sold for domestic heating and cooking. The result is that supplies are in excess of demand during the summer months. If these products are not saved, demand during the winter months exceeds supply. L.P.G. cannot be stored during the summer, for the winter market, in surface pressure vessels because of the extremely large storage volumes required with a resulting prohibitive investment in tanks. Subterranean storage has been developed as a solution to this critical problem.

It will be the first operation of this nature in the State of Utah, although some 42,000,000 barrels of this type storage exists in other regions of the United States. It is possible that once the operation is proven feasible in Utah, others will construct chambers of this type. The first storage chamber at Moab will have a capacity of 100,000 bbl.

Apparently no State Agency has been given clear cut authority to grant permission for the installation and operation of this type facility. Tentative approval has been granted by the State Engineer and the Industrial Commission.

The Railroad Commission of Texas, Corporation Commission (Oil and Gas regulatory body) of Oklahoma, and the L.P.G. Commission (a section of the Louisiana Conservation Commission) authorize this type activity in their various states.

Subterranean storage acts to stabilize winter supply and consequently increases public acceptance of this very versatile fuel. Wider public acceptance encourages oil and gas producers to strip L.P.G. products from their casing head or natural gas, because products can be saved and sold which would otherwise be flared.

The problem of storing L.P.G.'s has a direct bearing on the conservation of natural resources and will become an increasingly more critical problem as Utah's petroleum industry continues to expand. It is our belief

that the Utah Oil and Gas Conservation Commission is the most logical State Agency to authorize and encourage these types of storage projects.

We would greatly appreciate it if the Oil and Gas Conservation Commission would study this matter and to the limits of their present jurisdiction authorize us to proceed in the construction of this facility. Time is of the essence because it is imperative that we have the installation ready for service this summer.

Conservation of natural resources will be enhanced by the storage operation; it will produce revenue for the State and Local governmental agencies, and the General Public will be benefitted because of a stabilization in supply of the material which is to be stored for their eventual consumption, as well as the business volume brought into the local area of operation.

The corporation has advisers and superintendents well versed in the construction and operation of this type facility. All works will be conducted in accordance with the best practices of the trade and all equipment, piping and other facilities will be designed and installed in accordance with various national design and safety codes (A.P.I., A.S.M.E., U.A.L., etc.)

Yours very truly,

SUBURBAN GAS SERVICE, INC.

Neal E. Van Fossan,
Engineer

NEvF:cs

copy

February 5, 1960

Honorable Walter L. Budge,
Attorney General
236 State Capitol Building
Salt Lake City 14, Utah

Dear Sir:

Enclosed is a letter from a Mr. Neal E. Van Fossan, of Suburban Gas Service, Inc.

The Suburban Gas Service, Inc. desires to construct and use a subterranean chamber for the storage of Liquefied Petroleum Gases in the Moab Valley, approximately two miles north of Moab, on Highway 160.

This company is quite anxious to commence work on said project, but they are somewhat reluctant to do so without an opinion from you as to just what State department has or should assume jurisdiction over the underground storage of liquefied petroleum. As a precautionary measure, Mr. Van Fossan contacted the Industrial Commission, the Utah Water Pollution Control Board and the State Engineer's Office.

In most of the oil producing states the Oil and Gas Conservation Commission is responsible for regulating this type of operation. Mr. Van Fossan therefor has agreed to notify this commission where the injection well will be drilled and the method of completion and to keep us advised.

In order to expedite this matter, it will be greatly appreciated if you could render an opinion as to what State agency, if any, has authority to regulate said operations.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
EXECUTIVE SECRETARY

CBF:co
Attachment

February 5, 1960

Commissioner C. R. Henderson
R. F. D. No. 1
Vernal, Utah

Dear Chuck:

Enclosed is a letter from Mr. Neal E. Van Fossan, of Suburban Gas Service, Inc.

I have requested an attorney general's opinion as to just what State agency has authority to regulate the underground storage of liquefied petroleum.

Mr. Van Fossan has agreed to keep us informed with respect to his operations.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT

CBF:co

February 5, 1960

Commissioner E. W. Clyde
351 South State Street
Salt Lake City, Utah

Dear Mr. Clyde:

Enclosed is a letter from Mr. Neal E. Van Fossan, of Suburban Gas Service, Inc.

I have requested an attorney general's opinion as to just what State agency has authority to regulate the underground storage of liquefied petroleum.

Mr. Van Fossan has agreed to keep us informed with respect to his operations.

Yours very truly,

CBF:co

Encl.

February 5, 1960

Commissioner C. S. Thomson
Box 187
Moab, Utah

Dear Mr. Thomson:

Enclosed is a letter from Mr. Neal E. Van Fossan, of Suburban Gas Service, Inc.

I have requested an attorney general's opinion as to just what State agency has authority to regulate the underground storage of liquefied petroleum.

Mr. Van Fossan has agreed to keep us informed with respect to his operations.

Yours very truly,

CBF:co

Encl.

February 5, 1960

Commissioner W. G. Mann
First Security Building
Salt Lake City, Utah

Dear Mr. Mann:

Enclosed is a letter from Mr. Neal E. Van Fossem, of Suburban Gas Service, Inc.

I have requested an attorney general's opinion as to just what State agency has authority to regulate the underground storage of liquefied petroleum.

Mr. Van Fossan has agreed to keep us informed with respect to his operations.

Yours very truly,

CBF:co
Encl.

February 5, 1960

Commissioner M. V. Hatch
P. O. Box 301
Panguitch, Utah

Dear Mr. Hatch:

Enclosed is a letter from Mr. Neal E. Van Fossan, of Suburban Gas Service, Inc.

I have requested an attorney general's opinion as to just what State agency has authority to regulate the underground storage of liquefied petroleum.

Mr. Van Fossan has agreed to keep us informed with respect to his operations.

Yours very truly,

CBF:co

Encl.

UTAH STATE DEPARTMENT OF HEALTH
45 FORT DOUGLAS BLVD.
SALT LAKE CITY 13, UTAH

February 11,1960

To Members of the Utah Water Pollution Control Board

Grant K. Borg	Miles P. Romney
Doren B. Boyce	Welby W. Young
Ezra J. Fjeldsted	Dr. George W. Soffe
Robert A. Moss	Ray Glazier

There will be a meeting of the Utah Water Pollution Control Board on Friday, February 19, 1960 at 2 P.M. in the office of Dr. George W. Soffe at 45 Fort Douglas Boulevard, Salt Lake City.

Very truly yours,

UTAH WATER POLLUTION CONTROL BOARD

William F. Sigler
Chairman

lmt-v

cc Deseret News-Telegram
Salt Lake Tribune
United Press
Associated Press
State Dept. of Agriculture
Fish and Game Commission
State Engineer
Water and Power Board
Park and Recreation Commission
Land Board
Public Service Commission
Oil and Gas Conservation Commission
Forestry and Fire Control

UTAH STATE DEPARTMENT OF HEALTH

45 FORT DOUGLAS BLVD.
SALT LAKE CITY 13, UTAH

February 15,1960

MEMORANDUM TO: Utah Water Pollution Control Board Members

FROM: Lynn M. Thatcher, Executive Secretary

SUBJECT: Tentative Agenda for Board Meeting Scheduled for 2 P.M. Friday, February 19,1960 at 45 Ft.Douglas Boulevard

1. Approval of minutes of previous meeting.
2. Bear River Conference progress report.
3. Request of Suburban Gas Service, Inc. for permit to discharge brine into underground aquifer.
4. Attorney General's opinion on Blanding sewage disposal problem.

TEXAS NATURAL GASOLINE CORPORATION
800 ENTERPRISE BUILDING
TULSA 3, OKLAHOMA

Copy sent to Hess

February 22, 1960

Oil & Gas Conservation Commission
State of Utah
Room 510
Newhouse Building
Salt Lake City, Utah

Attention: Mr. Feight

Gentlemen:

I forward herewith form OGCC-1 (Notice of Intention to Drill) covering Suburban Gas Service, Inc. LPG Storage Well #1 near Moab, Utah.

Please forward your authorization to me at the address shown on this letterhead.

If you require that a bond be filed on this well, please let me know and I will see that it is forwarded immediately.

If you ahve any questions concerning this well, please do not hesitate to call on me.

Yours very truly,

N. E. Van Fossan (bh)

N. E. Van Fossan
Manager, Storage & Terminals

NEVF:bh
enc.

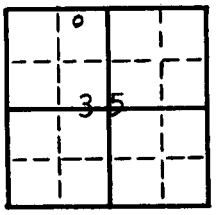
Texas Natural Texgas

PROPANE · BUTANE

Form OGCC-1 (SUBMIT IN DUPLICATE)

LAND:

Fee and Patented ☒
State ☐
Lease No. .....
Public Domain ☐
Lease No. .....
Indian ☐
Lease No. .....



STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

Notice of Intention to Drill	X	Subsequent Report of Water Shut-off	
Notice of Intention to Change Plans		Subsequent Report of Altering Casing	
Notice of Intention to Redrill or Repair		Subsequent Report of Redrilling or Repair	
Notice of Intention to Pull or Alter Casing		Supplementary Well History	
Notice of Intention to Abandon Well			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

February 22, 19 60

LPG Storage
Well No. 1 is located 70 ft. from {N} {S} line and 3260 ft. from {E} {W} line of Sec. 35

in NE¼ NW¼ (¼ Sec. and Sec. No.) T 26 S (Twp.) R 21 E (Range) ..... (Meridian)

..... (Field) GRAND (County or Subdivision) UTAH (State or Territory)

The elevation of the derrick floor above sea level is 3957.5 feet.

A drilling and plugging bond has been filed with None*.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important work, surface formation, and date anticipate spudding-in.)

This is to be a storage well for Liquified Petroleum Gases and storage chamber is to be completely within salt section (see our letter dated 2/1/60). Following casing program to be used:

18" .172" wall set @ 100'. Cont. to surface.
13" 42# set @ 900' (set on top of salt) cont'd.
8 5/8" 24# J-55 set@ 1200' (set 250-300' inside salt) cont. to surface.
7" 17# H-40 hung @1750' (protection liner hung from Xmas tree)
3½" 9.30# J-55 tbg.@2500' (set@ T.D. & hung in Xmas tree)

Anticipate spudding in 2/29/60.

I understand that this plan of work must receive approval in writing by the Commission before operations may be commenced.

Company SUBURBAN GAS SERVICE, INC.

Address 2021 N. Towne Ave.

Pomona, California

By Neal E. Van Fossan

Title Engineer

INSTRUCTIONS: A plat or map must be attached to this form showing the location of all leases, property lines, drilling and producing wells, within an area of sufficient size so that the Commission may determine whether the location of the well conforms to applicable rules, regulations and orders.

* This is not an oil or gas well. Bond will be filed if you so request.

TEXAS NATURAL GASOLINE CORPORATION
800 ENTERPRISE BUILDING
TULSA 3, OKLAHOMA

February 23, 1960

Utah Oil & Gas Conservation Commission
Room 510, Newhouse Building
Salt Lake City, Utah

Attention Mr. Feight

Gentlemen:

I am enclosing the vicinity plat of our proposed storage well near Moab. Please attach these to form OGCC-1.

To the best of my knowledge there are no oil and gas leases on areas surrounding these tracts. Great Lakes Carbon Corporation was formerly the fee owner of the large acreage block in question and retained the minerals thereunder.

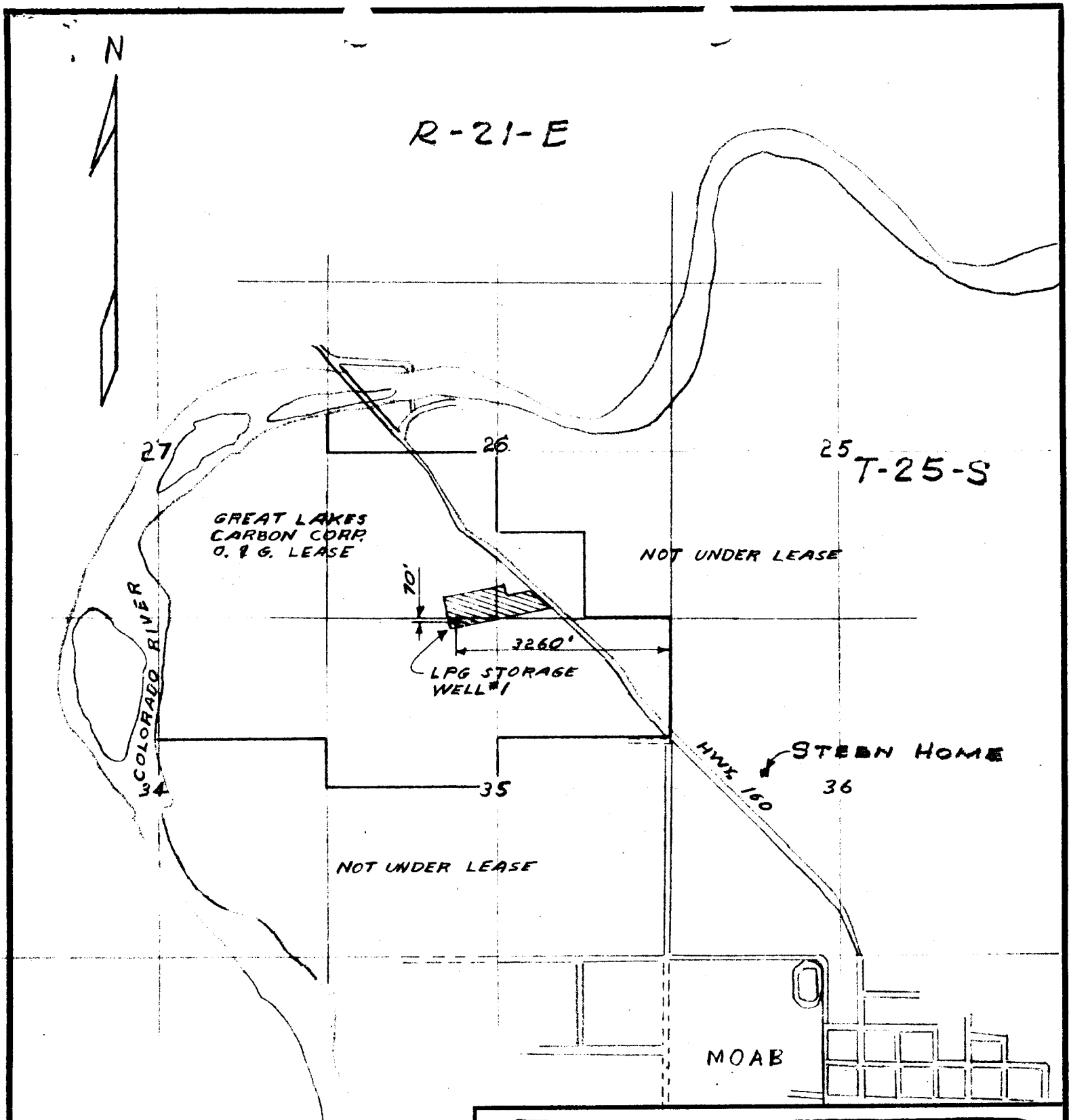
If you have any questions, please do not hesitate to call on me.

Yours very truly,

SUBURBAN GAS SERVICE, INC.

N. E. Van Fossan,
Engineer

NEVF:bh
enc.



[redacted]

PALMETTO CORP. TRACT

MOAB, GRAND COUNTY, UTAH

DRAWN G.T.	DATE 1-26-60	MU-1
TRACED	DATE	
APPROVED	SCALE 1"=2000'	FILE

February 25, 1960

Mr. Neal E. Van Fossan, Manager
Storage & Terminals
Texas Natural Gasoline Corporation
800 Enterprise Building
Tulsa 3, Oklahoma

Re: Suburban Gas Service, Inc. - LPG Storage
Well No. 1, NE¼ NW¼ Section 35, Township
26 South, Range 21 East, SLBM, Grand County

Dear Mr. Van Fossan:

We are in receipt of your notice of intention to drill and surveyer's plat for the above mentioned well.

Please be advised that it will be necessary for you to furnish a bond to this commission before final approval can be granted for the drilling of said well.

I have discussed this matter with the Water Pollution Control Board. They state that they are not willing to give final approval of this project until a determination is made as to what zone or horizon will be used for the salt water injection. They have, however, agreed to accept the findings of this office and the State Engineer's with respect to the adequacy of the zones which will be utilized.

When you are ready to drill the disposal well, if we give notice as required by our Rule C-11, I doubt very much that there will be any problems provided, of course, that our petroleum engineer and Mr. F. T. Mayo, of the State Engineer's Office, are of the opinion that the zones in which you wish to inject this salt water are adequate and will not contaminate any fresh water aquifers.

We have enclosed some of our bond forms for your use.

We have checked your casing and cementing program, and as soon as we receive your bond, approval will be granted for the drilling of the well.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
EXECUTIVE SECRETARY

CBF:co

cc: F. T. Mayo, Chief Water Resources Engineer
State Engineer's Office

cc: Lynn M. Thatcher, Executive Secretary
Utah Water Pollution Control Board

cc: H. L. Coonts, Petroleum Engineer
Utah Oil & Gas Conservation Commission
Moab Office

cc: Suburban Gas Service, Inc
Pomona, California

MEMORANDUM TO THE COMMISSION - L P G

March 2, 1960

On January 28, 1960, Mr. Neal E. Van Fossan of the Texas Natural Gas Company contacted me for the purpose of obtaining permission from the Oil and Gas Conservation Commission to construct and use a subterranean chamber for the storage of liquified petroleum gases in the Moab Valley, approximately two miles north of Moab, on Highway 160.

After checking the Utah Code, I advised Mr. Van Fossan that there was apparently no state agency with clear-cut authority to grant permission for the installation and operation of this type of facility. Therefore, I suggested that he contact the State Engineer's Office, the Industrial Commission and the Water Pollution and Control Board. I felt certain that at least the State Engineer's Office and the Water Pollution and Control Board would be vitally interested in the salt water disposal well, which would be a necessary part of this operation.

I referred Mr. Van Fossan to Rule C-11 of our rules and regulations concerning the procedure for the underground disposal of salt or brackish water and explained to him that I felt that if we followed the procedure outlined, we would have no problems with respect to this part of the operation.

On February 19, 1960, Doc and I attended a meeting of the Water Pollution and Control Board. At this meeting it was decided that the Water Pollution and Control Board would not give final approval of this project, as requested by Mr. Van Fossan, until a determination had been made

as to what zone or horizons would be used for the salt water injection. It was agreed that the Water Pollution and Control Board would accept the findings of this office and the State Engineer's Office with respect to the adequacys of the zones which would be utilized. It was also agreed at this meeting that the Oil and Gas Conservation Commission would accept primary responsibility for this project.

The underground storage of L P G involves the injection of gas under high pressure into depleted gas and oil fields or salt zones or other sub-surface strata capable of maintaining the gas. The storage fields are replenished during the summer months, thus allowing the pipelines to operate at a peak capacity throughout the year. As a conservation measure, it involves the saving of residue gas from the natural gasoline plants that would otherwise be flared during the summer months and continues production from wells that must be produced daily to justify economic operations.

After carefully checking the Oil and Gas Conservation Act, I can find nothing that would give this Commission express jurisdiction over a facility of this nature. Unfortunately, our statute, which is patterned after the Colorado Oil and Gas Conservation Act, in its definition of "waste" with respect to gas, does not include the additional wording (underlined) that the New Mexico statute has, I quote:

> "The term 'waste' as applied to gas shall include the escape, blowing or releasing, directly or indirectly, into the open air or gas from wells productive of gas only, or gas in an excessive or unreasonable amount from wells producing oil or both oil and gas; and the production of gas in quantities or in such manner as will unreasonably reduce reservoir pressure or unreasonably diminish the

quantity of oil or gas that might ultimately be produced; excepting gas that is reasonably necessary in the drilling, completing and testing of wells and in furnishing power for the production of wells and the use of inefficient underground storage of natural gas."

It is my understanding that in order to cover this type of situation, Colorado, as well as New Mexico, has adopted an act specifically applicable to the underground storage of natural gas.

In attempting to find some cases involving this problem, I made a thorough research of Sumner's "Oil and Gas" and "The Oil and Gas Reporter", and I could find nothing directly in point. However, I did find a couple of interesting cases that could indirectly support the proposition that a gas injection and producing well could be considered strictly as a gas well for all intents and purposes, and thus be regulated as such, with respect to the method of drilling and completing.

Contemporary authority appears to support the proposition that there is no liability for the migration of injected substances on a theory of trespass. What may be called a "negative rule of capture" appears to be developing; just as under the rule of capture a landowner may capture such oil or gas as will migrate from the adjoining premises to a well bottomed on his own land, so also may he inject into a formation substances which may migrate through the structure to the land of others, even if this results in displacement under such land, of more valuable with less valuable substances.

In the case of Central Kentucky Natural Gas Company vs. Smallwood, 252 SW 2nd 866, the court was called upon to determine between the surface and the mineral owner as to who was entitled to the rentals accruing

under a lease for the subterranean storage of gas. With respect to that question, the court held that one does not own the gas in the sense that one owns the surface or solid minerals. Such ownership is limited to the exclusive legal right to explore, and if the gas should be found, to reduce the same to possession and ownership. But the mineral owner has the right to exclude all others from attempting to exercise the right on this premises. Unless restricted by the terms of a lease, the mineral owner would have exclusive right to explore for and produce gas released for storage as well as native gas. The court in this case cited the case of Hammond vs. Central Kentucky Natural Gas Company, 75 SW 2nd 204, which involved a question of ownership of gas after its storage. In the Hammond case, the plaintiff owned a small tract of land located within the boundaries of the reservoir utilized for gas storage, but which was not leased to the gas company. A geologic basin or dome extended under the property of the Hammonds, and when the gas was forced into the ground, it penetrated this cavity and was being withdrawn as the company pumped its adjacent wells. In a suit for trespass, the landowner claimed the gas was placed in and under the property without her knowledge or consent. The court held that the company ceased to be the exclusive owner of the gas after its injection into the ground, and not being owner of the gas, was not responsible for trespass on account of its storage beneath the property of the landowner. The ownership of gas once being captured and then released by injection into the ground was held as being analogous to wild animals. In this connection it was said that if one captures a fox in the forest and turns it loose in another, or if he catches a fish and puts it back into the stream at one point, has he not done with that migratory-form of

property just what the defendants have done with the gas in this case. Did the company not lose its exclusive property in the gas when it restored the substance to its natural habitat. The court goes on to say that under the analogy recognized in the Hammond case, it is apparent that there is no distinction in the title of gas once recovered and released for subterranean storage, and native gas before its initial recovery.

I have been somewhat concerned over the fact that the Federal Power Commission might be in some way involved in this project. Under the Natural Gas Act, 15 USCA Section 717(6), 1948, every natural gas company, as defined by said act, must secure approval from the F P C for all construction, acquisition or operation of facilities utllized in interstate transportation of natural gas. I discussed this problem with Mr. Van Fossan, and he states that the Federal Power Commission is not interested in the storage of L P G. Mr. Van Fossan states that actually LPG is the storage of butane and propane under artificial conditions, and, in his opinion, is not considered as a natural gas. Therefore, his company has never filed an application with the Federal Power Commission.

This, of course, is not our problem, however, it does bring up the question of whether LPG would be considered natural gas in the state of Utah, should we ever be required to argue for acceptance of the ruling in the Hammond case before a Utah court.

The Utah Oil and Gas Conservation Act defines gas as "all natural gases and other liquid hydrocarbons not defined herein as oil."

The word "oil" is defined as "crude petroleum oil and anyother hydrocarbons, regardless of gravities, produced at the well in liquid form by ordinary production methods and not the result of condensation of gas before or after it leaves the reservoir."

"The Manual of Oil and Gas Terms" defines "liquid hydrocarbons" as those hydrocarbons which are liquid at surface temperature and pressure. Said manual also defines "LPG" as "liquid petroleum gases being liquified propanes and butanes as separately or in mixture."

Dorsay Hager in his book "Practical Oil Geology" states that methane, ethane, propane, and butane are all gases under ordinary atmospheric conditions. Pentane, hexane and heptane are liquids and are the chief constituents of ordinary refinery gasoline.

From these definitions it would appear that we can conclude that L P G under the Utah definition is a natural gas in that it is not a liquid at surface temperature and pressure. It must, in effect, be compressed at a specific temperature in order to take on a liquified form.

In conclusion I would like to state that the Suburban Gas Services, Inc. has submitted to the jurisdiction of this Commission. They have already filed their notice of intention to drill their injection and storage well, and will submit a bond within the very near future.

I would like at this time to recommend that the Commission consider presenting a bill to the next legislature which would give it specific control over L P G storage facilities.

Cleon B Feight

CLEON B. FEIGHT
EXECUTIVE SECRETARY

DRAFT

Water Pollution & Control meeting 2-19-60

LPG

Underground storage involves the injection of ~~natural~~ gas under high pressure into depleted gas and oil fields or salt zones or other subsurface strata capable of containing the gas. The storage fields are replenished during the summer months, thus allowing the pipelines to operate at a peak capacity throughout the year. As a conservation measure, it involves the saving of residue gas from the natural gasoline plants that would otherwise be flared during the summer months, ~~and continues production from the strip of wells that must be produced daily to justify economic operation~~.

Storage gas has been defined as that gas which has been transferred from its original location and the gas and/or oil field to another natural underground reservoir for the primary purpose of conservation for the fuller utilization of pipeline capacities and more effective deliveries to markets.

Every natural gas company as defined by the Natural Gas Act, 15 USCA Sec. 717 (6) 1948, must secure approval from the of for all construction, acquisition or operation facilities utilized in interstate transporation of natural gas.

56 Statute 84, 1942, 15 USCA, Sec. 717 (f) 1948, ? This is accomplished through the filing of an application for a certificate of public convenience and necessity. For underground storage facilities are to be utilized, a detailed study of geology, reservoir storage pressure, and top volume gas to be stored must be made.

15, USCA, Sec 157.4(a) (10) (VII). Plans for financing of the proposed facilities and a statement of the rates to be charged must be filed.

In addition to proving an adequate gas supply, the applicant

must make a showing of the physical adequacy and economic feasibility of the system, that he can finance the project on a basis which will result in reasonable charges and that it has an assured market for the volume of gas it proposes to transport.

I have contacted this Mr. Neal Van Fossan of Suburban Gas Services, Inc. and he informs me that the gas that will be stored just north of Moab will be obtained from within the state; ~~therefore, the~~ Federal Power Commission will ~~not in any way~~ be involved.

After careful observation of the Oil and Gas Conservation Act, I am of the opinion that this Commission has jurisdiction over this facility to the extent that we would normally have jurisdiction over the drilling of a well for oil and/or gas, or a disposal well, for the purpose of disposing of the salt water brine which will result from creating a cavern in which to store the gas.

Unfortunately, our statute, which is patterned after the Colorado Oil and Gas Conservation Act, and its definition of waste with respect to gas, does not include the same additional wording that the New Mexico statute has, I quote: "and the use of inefficient underground storage of natural gas". However, I am basing my opinion on the decision of the Central Kentucky Natural Gas Company vs. Smallwood, 252 South West ~~Second~~ 2nd 866; ~~Oil and Gas Reporter~~ 19. This case involved the question of who was entitled as between the surface ~~for~~ mineral owner to the rentals accruing under a lease for the subterranean storage of gas. With respect to that question, the court held that title to gas in place whether a severed or unsevered estate is a qualified one because of its fugitive characteristics. One does not own the gas in the sense that one owns the surface or the solid minerals. Such ownership is limited to the exclusive legal right to explore; and if gas should be found,

to reduce the same to possession and ownership. But the mineral owner has the right to exclude all others from attempting to exercise the right on his premises.

Unless restricted by the terms of a lease, the mineral owner would have exclusive right to explore for and produce gas released for storage as well as native gas. The court in this case, [redacted] cited the case of Hammond vs. Central Kentucky Natural Gas Company, 75 Southwest 2nd 204, which involved a question of ownership of gas after its storage and the later case of Cornwall vs. Central Kentucky Natural Gas Company, 249 Southwest 2nd 531, which was one involving the acquisition of a gas storage lease by eminent domain under the provisions of a statute enacted by the General Assembly at its 1948 session. In the Hammond Case, the opponent owned a small tract of land located within the boundary used for gas storage which was not leased to the gas company. The geologic basin or dome extended under the property of the Hammonds, and when the gas was forced in to the ground, it penetrated this cavity and was being withdrawn as the company pumped its adjacent wells. In a suit for trespass the owner claimed the gas was placed in and under the property without her knowledge or consent. The court held that the company ceased to be the exclusive owner of the gas after its injection into the ground, and not being owner of the gas, was not responsible for trespass on account of its storage beneath the property of the land owner. The ownership of gas once being captured and then released by injection into the ground was held to being analogous to wild animals...in this connection it was said that if one

captures a fox in the forest and turns it loose in another,
catches
or if he a fish and puts it back into the stream at another point,
Has he not done with that migratory-form of property just what the (?felee)
has done with the gas in this case. Did the company not lose its exclusive
property in the gas when it restored the substance to its natural
habitat. The court goes on to say "under the analogy recognized in the
Hammond case, it is apparent that there is no distinction in the title of
gas once recovered and released for subterranean storage, and
native gas before its initial recovery.

Based on these two decisions, there is not doubt in my mind that we could probably select the two-mill levy for the purpose of paying the administrative expenses of this commission.

Before we go any further, I think we must determine "what is natural gas?". The Utah Oil & Gas Conservation Act defines gas to mean all natural gases, and all other liquid hydrocarbons, not defined herein as oil. The word "Oil" shall mean crude petroleum oil and anyother hydrocarbons, regardless of gravities, which are produced at the well in liquid form by ordinary production methods, and are not the results of condensation of gas before or after it leaves the reservoir. The Manual of Oil & Gas Terms defines "Liquid Hydrocarbons" as those hydrocarbons which are liquid at surface temperature and pressure. The Manual of Oil & Gas Terms also defines "LPG" as liquified petroleum gases being liquified propanes and butanes as separately or in mixtures. Dorsay Hager in his book called "Practical Oil Geology" states that
ethane
methane,/propane, and butane are gases under ordinary atmospheric conditions.

Methane, Hexthane and heptane are liquids and are the chief constituents ordinary refinery gasoline. It would appear that LPG under the Utah definition is a natural gas, in that it is not a liquid at surface temperature and pressure. It must be in effect a compressed

I have talked with Mr. Van Fossan and a it appears that the Federal Power Commission is not interested in the storage of this LPG gas, at least he says up to until this time they have had no problems. I will attempt to determine whether the Federal Power Commission classifies LPG gases as natural gas . MR. Van Fossan states that actually LPG is the storage of butane and propane under artificial conditions. In other words, they are submitted to sufficient pressure and temperature in order to liquify them. I think that this is not necessarily artificial because in many cases, these liquified petroleum products...these particular gases are in the formation---they could be under sufficient pressure and probably are.,.under sufficient pressure to be liquified. However, I think we can reasonably find that under the defintion of natural gas in Utah, LPG will be considered as such.

LIQIFIED PETROLEUM GAS

On January 28, 1960, Mr. Neal E. Van Fossan of the Texas Natural Gas Company contacted me for the purpose of obtaining permission from the Oil and Gas Conservation Commission to construct and use a subterranean chamber for the storage of liquefied petroleum gases in the Moab Valley, approximately two miles north of Moab, on Highway 160.

After checking the Utah Code, I advised Mr. Van Fossan that there was apparently no state agency with clear-cut authority to grant permission for the installation and operation of this type of facility. Therefore, I suggested that he contact the State Engineer's Office, the Industrial Commission and the Water Pollution and Control Board. I felt certain that at least the State Engineer's Office and the Water Pollution Control Board would be vitally interested in the Salt water disposal well which would be a necessary part of the proposed installation.

I referred Mr. Van Fossan to Rule C-11 of our rules and regulations concerning the procedure for the underground disposal of salt water brackish water and explained to him that I felt that if we followed the procedure outlined, we would not have no problems with respect to this part of the operation.

On February 19, 1960, Doc and I attended a meeting of the Water Pollution and Control Board. At this meeting it was decided that the Water Pollution and Control Board would not give final approval of this project as requested by Mr. Van Fossan until a determination has been made as to what zone or horizons would be used for the salt water injection. They however agreed that the Water Pollution Control Board to accept the findings of this office and the State Engineer's Office with respect to

adequacies of the zones which would be utilized. I ~~told~~ the Water Pollution and Control Board that the Oil and Gas Commission would ~~have~~ primary ~~jurisdiction~~ for this project ~~if I feel that if notice is given as required by Rule 311,~~ there will be very little ~~problem~~, if any, provided, of course, that our petroleum engineer and Mr. Mayo of the State Engineer's Office are of the opinion that the zones in which the salt water is to be injected are adequate and will not contaminate any fresh water aquifers ~~wells~~

The underground storage of LPG involves the injection of gas under high pressure into depleted gas and oil fields or salt zones or other sub-surface strata capable of maintaining the gas. The storage fields are replenished during the summer months, thus allowing the pipelines to operate at a peak capacity throughout the year. As a conservation measure, it involves the saving of residue gas from the natural gasoline plants that would otherwise be flared during the summer months.

After carefully checking the Oil and Gas Conservation Act, I can find nothing that would give this Commission express jurisdiction over a facility of this nature. Unfortunately, our statute, which is patterned after the Colorado Oil and Gas Conservation Act, in its definition of "Waste" with respect to gas, does not include the ~~same~~ additional wording (underlined) that the New Mexico statute has, I quote:

> "..and the use of inefficient underground storage of natural gas."

It is my understanding that in order to cover this type of situation, ~~the~~ Colorado, as well as New Mexico, has adopted an act specifically applicable to the underground storage of natural gas.

In attempting to find some cases involving this problem, I made a thorough research of Summer's on Oil and Gas" and "The Oil and Gas Reporter", and I could find nothing directly in point. However, I did find a couple of interesting cases that could indirectly support the proposition that a gas injection and producing well could be considered strictly as a gas well for all intents and purposes, and thus be regulated as such, with respect to the method of drilling and completing.

Contemporary authority appears to support the proposition that there is no liability for the migration of injected substances on a theory of trespass. What may be called a "negative rule of capture" appears to be developing; just as under the rule of capture a landowner may capture such oil or gases as will migrate from the adjoining premises to a well bottomed on his own land, so may he also inject into a formation substances which may migrate through the structure to the land of others, even if this results in displacement under such land, (at?) of the more valuable with less valuable substances.

In the case of Central Kentucky Natural Gas Company vs. SMallwood, 252 SW 2nd 866, the court was called upon to determine as to who was entitled to the rentals accruing under a lease for the subterranean storage of gas between the surface and the mineral owner. With respect to that question, the court held that ~~the title of gas in place whether a severed or unsevered estate is a qualified one because of its fugitive characteristics.~~ One does not own the gas in the sense that one owns the surface or solid minerals. Such ownership is limited to the exclusive legal right to explore, and if the gas should be found, to reduce the same to possession and ownership. But the mineral owner

has the right to exclude all others from attempting to exercise the right on his premises.

Unless restricted by the terms of a lease, the mineral owner would have exclusive right to explore for and produce gas released for storage as well as native gas. The court in this case cited the case of Hammond vs. Central Kentucky Natural Gas Company, 75 SW 2nd 204, which involved a question of ownership of gas after its storage. In the Hammond case, the plaintiff owned a small tract of land located within the boundaries of the reservoir intended for gas storage, but which was not leased to the gas company. A geologic basin or dome extended under the property of the Hammonds, and when the gas was forced into the ground, it penetrated this cavity and was being withdrawn as the company pumped its adjacent wells. In a suit for trespass, the landowner claimed the gas was placed in and under the property without her knowledge or consent. The court held that the company ceased to be the exclusive owner of the gas after its injection into the ground, and not being owner of the gas, was not responsible for trespass on account of its storage beneath the property of the land owner. The ownership of gas once being capturedand then released by injection into the ground was held to being analogous to wild animals. In this connection it was said that if one capture a fox in the forest and turns it loose in another, or if he catches a fish and puts it back into the stream at one point, has he not done with that migratory-form of property just what the defendants have done with the gas in this case. Did the company not lose its exclusive property in the gas when it restored the substance to its natural habitat. The court goes on to say that under the analogy recognized in the Hammond case, it is apparent that there is no distinction in the title of gas once recovered and

released for subterranean storage, and native gas before its initial recovery.

If the Utah Codes would adopt the reasoning in this case, there is no doubt in my mind that we could probably assess and collect the two-mill levy on all gas produced from this well.

I have been somewhat concerned over the fact that the Federal Power Commission might be in some way involved in this project. Under the Natural Gas Act, 15 USCA Section 717(6) 1948, every natural gas company, as defined by said act, must secure approval from the FPC for all construction, acquisition or operation of facilities utilized in interstate transportation of natural gas. I discussed this problem with Mr. Van Fossan, and he states that the Federal Power Commission is not interested in the storage of LPGas. ~~At least, he said, up until this time, they have not attempted to obtain permission from the Federal Power Commission to construct and operate an underground storage facility for LPG.~~ Mr. Van Fossan states that actually LPG is the storage of butane and propane under artificial conditions, and, ~~therefore~~, in his opinion, is not considered as natural gas. ~~The Texas Natural Gas Corporation or the Suburban Gas Services, Inc.~~, has never filed an application with the Federal Power Commission.

This, of course, is not our problem; however, it does bring up the question of whether LPG would be considered natural gas in the state of Utah, should we ever be ~~forced~~ required to argue for acceptance of the ruling in the Hammond case before a Utah court.

The Utah Oil and Gas Conservation Act defines gas as "all natural gases and other liquid hydrocarbons not defined herein as oil."

The word "oil" is defined as "crude petroleum oil and anyother hydrocarbons, regardless of gravities, produced at the well in liquid form by ordinary production methods, and not the result of condensation of gas before or after it leaves the reservoir."

The Manual of Oil and Gas Terms defines "Liquid Hydrocarbons" as those hydrocarbons which are liquid at surface temperature and pressure. The Standard Manual of Oil and Gas Terms also defines "LPG" as"liquid petroleum gases being liquified propanes and butanes as separately or in mixture."

Dorsay Hager in his book "Practical Oil Geology" states that methane, ethane, propane, and butane are all gases under ordinary atmospheric conditions. Methane, hexane and heptane are liquids and are the chief constituents of ordinary refinery gasoline.

From these definitions it would appear that we can conclude in that that "LPG" under the Utah definition is a natural gas it is not a liquid at surface temperature and pressure. It must, in effect, be compressed at a specific temperature inorder to take on a liquified form.

In conclusion I would like to state that the Suburban Gas Services, Inc. has submitted to the jurisdiction of this Commission, they have already filed their notice of intention to drill their injection and storage well, and will submit a bond within the very near future.

I doubt that we will ever be faced with any of the above mentioned problems. However, I would like at this to recommend that the Commission should consider presenting a bill to the next Legislature which would give this Commission specific control over LPG storage facilities.

MEMORANDUM TO THE COMMISSION - L P G

March 2, 1960

On January 28, 1960, Mr. Neal E. Van Fossan of the Texas Natural Gas Company contacted me for the purpose of obtaining permission from the Oil and Gas Conservation Commission to construct and use a subterranean chamber for the storage of liquified petroleum gases in the Moab Valley, approximately two miles north of Moab, on Highway 160.

After checking the Utah Code, I advised Mr. Van Fossan that there was apparently no state agency with clear-cut authority to grant permission for the installation and operation of this type of facility. Therefore, I suggested that he contact the State Engineer's Office, the Industrial Commission and the Water Pollution and Control Board. I felt certain that at least the State Engineer's Office and the Water Pollution and Control Board would be vitally interested in the salt water disposal well, which would be a necessary part of this operation.

I referred Mr. Van Fossan to Rule C-11 of our rules and regulations concerning the procedure for the underground disposal of salt or brackish water and explained to him that I felt that if we followed the procedure outlined, we would have no problems with respect to this part of the operation.

On February 19, 1960, Doc and I attended a meeting of the Water Pollution and Control Board. At this meeting it was decided that the Water Pollution and Control Board would not give final approval of this project, as requested by Mr. Van Fossan, until a determination had been made

as to what zone or horizons would be used for the salt water injection. It was agreed that the Water Pollution and Control Board would accept the findings of this office and the State Engineer's Office with respect to the adequacys of the zones which would be utilized. It was also agreed at this meeting that the Oil and Gas Conservation Commission would accept primary responsibility for this project.

The underground storage of L P G involves the injection of gas under high pressure into depleted gas and oil fields or salt zones or other sub-surface strata capable of maintaining the gas. The storage fields are replenished during the summer months, thus allowing the pipelines to operate at a peak capacity throughout the year. As a conservation measure, it involves the saving of residue gas from the natural gasoline plants that would otherwise be flared during the summer months and continues production from wells that must be produced daily to justify economic operations.

After carefully checking the Oil and Gas Conservation Act, I can find nothing that would give this Commission express jurisdiction over a facility of this nature. Unfortunately, our statute, which is patterned after the Colorado Oil and Gas Conservation Act, in its definition of "waste" with respect to gas, does not include the additional wording (underlined) that the New Mexico statute has, I quote:

> "The term 'waste' as applied to gas shall include the escape, blowing or releasing, directly or indirectly, into the open air or gas from wells productive of gas only, or gas in an excessive or unreasonable amount from wells producing oil or both oil and gas; and the production of gas in quantities or in such manner as will unreasonably reduce reservoir pressure or unreasonably diminish the

quantity of oil or gas that might ultimately be produced; excepting gas that is reasonably necessary in the drilling, completing and testing of wells and in furnishing power for the production of wells and the use of inefficient underground storage of natural gas."

It is my understanding that in order to cover this type of situation, Colorado, as well as New Mexico, has adopted an act specifically applicable to the underground storage of natural gas.

In attempting to find some cases involving this problem, I made a thorough research of Summer's "Oil and Gas" and "The Oil and Gas Reporter", and I could find nothing directly in point. However, I did find a couple of interesting cases that could indirectly support the proposition that a gas injection and producing well could be considered strictly as a gas well for all intents and purposes, and thus be regulated as such, with respect to the method of drilling and completing.

Contemporary authority appears to support the proposition that there is no liability for the migration of injected substances on a theory of trespass. What may be called a "negative rule of capture" appears to be developing; just as under the rule of capture a landowner may capture such oil or gas as will migrate from the adjoining premises to a well bottomed on his own land, so also may he inject into a formation substances which may migrate through the structure to the land of others, even if this results in displacement under such land, of more valuable with less valuable substances.

In the case of Central Kentucky Natural Gas Company vs. Smallwood, 252 SW 2nd 866, the court was called upon to determine between the surface and the mineral owner as to who was entitled to the rentals accruing

under a lease for the subterranean storage of gas. With respect to that question, the court held that one does not own the gas in the sense that one owns the surface or solid minerals. Such ownership is limited to the exclusive legal right to explore, and if the gas should be found, to reduce the same to possession and ownership. But the mineral owner has the right to exclude all others from attempting to exercise the right on this premises. Unless restricted by the terms of a lease, the mineral owner would have exclusive right to explore for and produce gas released for storage as well as native gas. The court in this case cited the case of Hammond vs. Central Kentucky Natural Gas Company, 75 SW 2nd 204, which involved a question of ownership of gas after its storage. In the Hammond case, the plaintiff owned a small tract of land located within the boundaries of the reservoir utilized for gas storage, but which was not leased to the gas company. A geologic basin or dome extended under the property of the Hammonds, and when the gas was forced into the ground, it penetrated this cavity and was being withdrawn as the company pumped its adjacent wells. In a suit for trespass, the landowner claimed the gas was placed in and under the property without her knowledge or consent. The court held that the company ceased to be the exclusive owner of the gas after its injection into the ground, and not being owner of the gas, was not responsible for trespass on account of its storage beneath the property of the landowner. The ownership of gas once being captured and then released by injection into the ground was held as being analogous to wild animals. In this connection it was said that if one captures a fox in the forest and turns it loose in another, or if he catches a fish and puts it back into the stream at one point, has he not done with that migratory-form of

property just what the defendants have done with the gas in this case. Did the company not lose its exclusive property in the gas when it restored the substance to its natural habitat. The court goes on to say that under the analogy recognized in the Hammond case, it is apparent that there is no distinction in the title of gas once recovered and released for subterranean storage, and native gas before its initial recovery.

I have been somewhat concerned over the fact that the Federal Power Commission might be in some way involved in this project. Under the Natural Gas Act, 15 USCA Section 717(6), 1948, every natural gas company, as defined by said act, must secure approval from the F P C for all construction, acquisition or operation of facilities utllized in interstate transportation of natural gas. I discussed this problem with Mr. Van Fossan, and he states that the Federal Power Commission is not interested in the storage of L P G. Mr. Van Fossan states that actually LPG is the storage of butane and propane under artificial conditions, and, in his opinion, is not considered as a natural gas. Therefore, his company has never filed an application with the Federal Power Commission.

This, of course, is not our problem, however, it does bring up the question of whether LPG would be considered natural gas in the state of Utah, should we ever be required to argue for acceptance of the ruling in the Hammond case before a Utah court.

The Utah Oil and Gas Conservation Act defines gas as "all natural gases and other liquid hydrocarbons not defined herein as oil."

The word "oil" is defined as "crude petroleum oil and anyother hydrocarbons, regardless of gravities, produced at the well in liquid form by ordinary production methods and not the result of condensation of gas before or after it leaves the reservoir."

"The Manual of Oil and Gas Terms" defines "liquid hydrocarbons" as those hydrocarbons which are liquid at surface temperature and pressure. Said manual also defines "LPG" as "liquid petroleum gases being liquified propanes and butanes as separately or in mixture."

Dorsay Hager in his book "Practical Oil Geology" states that methane, ethane, propane, and butane are all gases under ordinary atmospheric conditions. Pentane, hexane and heptane are liquids and are the chief constituents of ordinary refinery gasoline.

From these definitions it would appear that we can conclude that L P G under the Utah definition is a natural gas in that it is not a liquid at surface temperature and pressure. It must, in effect, be compressed at a specific temperature in order to take on a liquified form.

In conclusion I would like to state that the Suburban Gas Services, Inc. has submitted to the jurisdiction of this Commission. They have already filed their notice of intention to drill their injection and storage well, and will submit a bond within the very near future.

I would like at this time to recommend that the Commission consider presenting a bill to the next legislature which would give it specific control over L P G storage facilities.

Cleon B Feight

CLEON B. FEIGHT
EXECUTIVE SECRETARY

March 3, 1960

Mr. Neal E. Van Fossan, Manager
Storage & Terminals
Texas Natural Gasoline Corporation
800 Enterprise Building
Tulsa 3, Oklahoma

Re: Suburban Gas Services, Inc. - LPG Storage
Well No. 1, NE¼ NW¼ Section 35, Township
26 South, Range 21 East, SLBM, Grand County

Dear Mr. Van Fossan:

It has come to our attention that a rig is already on location with respect to the above-mentioned well.

It would be greatly appreciated if the bond requested in our letter of February 25, 1960, could be submitted as soon as possible.

Please advise.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
EXECUTIVE SECRETARY

CBF:co

cc: Suburban Gas Services, Inc.
2021 North Towne Avenue
Pomona, California

THE STATE OF UTAH

OIL AND GAS CONSERVATION COMMISSION

B O N D

KNOW ALL MEN BY THESE PRESENTS,

That we: UNION TEXAS NATURAL GAS CORPORATION (FORMERLY TEXAS NATURAL GASOLINE CORPORATION)

of the County of: Tulsa in the State of: Oklahoma

as Principal and: THE ÆTNA CASUALTY AND SURETY COMPANY, Hartford, Connecticut

as surety, authorized to do business in this State, are held and firmly bound unto the State in the penal sum as indicated, lawful money of the United States, for which payment, well and truly to be made to the State of Utah for the use and benefit of the Oil and Gas Conservation Commission, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The condition of this obligation is that whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State of Utah, to wit:

(may be used as blanket bond or for single well)

LPG Storage Well No. 1, Northeast Quarter (NE/4) Nowthwest Quarter (NW/4) Section Thirty-five (35), Township Twenty-six (26) South, Range Twenty-one (21) East, SLBM, Grand County

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State, and the rules, regulations and orders of the Conservation Commission of the State, including, but not limited to, the proper plugging of said well or wells, and filing with the Oil and Gas Conservation Commission of the State, all notices and records required by said Commission, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal Sum of FIVE THOUSAND AND NO/100 - - - - - - ($5,000.00) State of Utah

Witness our hands and seals, this 4th day of March, 1960.

UNION TEXAS NATURAL GAS CORPORATION
(FORMERLY) TEXAS NATURAL GASOLINE CORPORATION

BY: ______________________
Principal

Witness our hands and seals, this 4th day of March, 1960.

THE ÆTNA CASUALTY AND SURETY COMPANY

Robt L. D... T... [signature]

A.M. McIntosh [signature]

THE STATE OF UTAH

OIL AND GAS CONSERVATION COMMISSION

B O N D

KNOW ALL MEN BY THESE PRESENTS,

That we: UNION TEXAS NATURAL GAS CORPORATION (FORMERLY TEXAS NATURAL GASOLINE CORPORATION)

of the County of: Tulsa in the State of: Oklahoma

as Principal and: THE ÆTNA CASUALTY AND SURETY COMPANY, Hartford, Connecticut

as surety, authorized to do business in this State, are held and firmly bound unto the State in the penal sum as indicated, lawful money of the United States, for which payment, well and truly to be made to the State of Utah for the use and benefit of the Oil and Gas Conservation Commission, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The condition of this obligation is that whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State of Utah, to wit:

(may be used as blanket bond or for single well)

LPG Storage Well No. 1, Northeast Quarter (NE/4) Nowthwest Quarter (NW/4)

Section Thirty-five (35), Township Twenty-six (26) South, Range Twenty-one (21)

East, SLBM, Grand County

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State, and the rules, regulations and orders of the Conservation Commission of the State, including, but not limited to, the proper plugging of said well or wells, and filing with the Oil and Gas Conservation Commission of the State, all notices and records required by said Commission, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal Sum of FIVE THOUSAND AND NO/100 - - - - - - ($5,000.00) State of Utah

Witness our hands and seals, this 4th day of March, 1960.

UNION TEXAS NATURAL GAS CORPORATION
(FORMERLY) TEXAS NATURAL GASOLINE CORPORATION

X BY: R C Frederick
Principal

Witness our hands and seals, this 4th day of March, 1960.

THE ÆTNA CASUALTY AND SURETY COMPANY

ATTEST: Betty J. Frantzis
Resident Assistant Secretary

BY: A. M. McMekin
A. M. McMekin, ~~Surety~~
Resident Vice President

Approved as to form and execution:

ATTORNEY GENERAL
STATE OF UTAH

By: _____

Date: _____

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany this bond.)

The Ætna Casualty and Surety Company

Hartford, Connecticut

Power of Attorney and Certificate of Authority of Resident Vice Presidents and Resident Assistant Secretaries.

KNOW ALL MEN BY THESE PRESENTS, That *The Ætna Casualty and Surety Company*, a corporation organized under the laws of the State of Connecticut and having its principal office in the City of Hartford, State of Connecticut, by its duly authorized officer, does hereby appoint the following resident officers, with business address indicated below but without territorial restriction, and does grant full power and authority to each Resident Vice President to sign and execute on its behalf, and to each Resident Assistant Secretary to seal and attest on its behalf, any and all bonds, recognizances, contracts of indemnity, or writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and all such instruments signed by any one of said Resident Vice Presidents, when sealed and attested by any other person named below as one of said Resident Assistant Secretaries, shall be as valid and binding upon the Company as if the same had been signed by the President and duly sealed and attested:

RESIDENT VICE PRESIDENTS	RESIDENT ASSISTANT SECRETARIES	BUSINESS ADDRESS
A. M. McMekin	A. M. McMekin	Tulsa,
M. C. Kirk	M. C. Kirk	Oklahoma
Emory L. Smith	Emory L. Smith	***
***	Betty F. Prentice	
	***	

These appointments are made under and by authority of the following provisions of the by-laws of the Company which provisions are now in full force and effect and are the only applicable provisions of said by-laws:

ARTICLE IV—Section 9. The President, any Vice President, or any Secretary may from time to time appoint Resident Vice Presidents, Resident Assistant Secretaries, Attorneys-in-Fact, and Agents to act for and on behalf of the Company and may give any such appointee such authority as his certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors may at any time remove any such appointee and revoke the power and authority given him.

ARTICLE IV—Section 11. Any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President or a Vice President or by a Resident Vice President, pursuant to the power prescribed in the certificate of authority of such Resident Vice President, and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary or by a Resident Assistant Secretary, pursuant to the power prescribed in the certificate of authority of such Resident Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact pursuant to the power prescribed in his or their certificate or certificates of authority.

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of *The Ætna Casualty and Surety Company* at a meeting duly called and held on the 18th day of July, 1958.

Resolved, that, whereas the President or any Vice President or any Secretary, has the power and authority to appoint by a power of attorney, for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, one or more Resident Vice Presidents, Resident Assistant Secretaries and Attorneys-in-Fact;

Now therefore the signature of Guy E. Mann, Vice President, or of A. H. Anderson, Vice President, or of J. A. Swearingen, Secretary, and the seal of the Company may be affixed to any such power of attorney or to any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, *The Ætna Casualty and Surety Company* has caused this instrument to be signed by its Secretary, and its corporate seal to be hereto affixed, this 10th day of September, A. D., 1959.

The Ætna Casualty and Surety Company,

By J. A. Swearingen
Secretary

State of Connecticut, County of Hartford—ss:

On this 10th day of September, A. D., 1959, before me personally came J. A. SWEARINGEN, to me known, who, being by me duly sworn, did depose and say: that he is Secretary of *The Ætna Casualty and Surety Company*, the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that is was so affixed by authority of his office under the by-laws of said corporation and that he signed his name thereto by like authority.

George A. Perry, Jr.
Notary Public

My Commission Expires Mar. 31, 1961.

CERTIFICATE

I, the undersigned, Secretary of *The Ætna Casualty and Surety Company*, a stock corporation of the State of Connecticut, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney and Certificate of Authority remains in full force and has not been revoked; and furthermore, that Article IV Sections 9 and 11, of the By-Laws of the Company, and the Resolution of the Board of Directors, as set forth in the Certificate of Authority, are now in force.

Signed and Sealed at the Home Office of the Company, in the City of Hartford, State of Connecticut, this 4th day of March A. D., 1960.

J. A. Swearingen
Secretary

(S-1854) (M)

TEXAS NATURAL GASOLINE CORPORATION
800 ENTERPRISE BUILDING
TULSA 3, OKLAHOMA

March 7, 1960

Oil & Gas Conservation Commission
310 Newhouse Building
10 Exchange Place
Salt Lake City 11, Utah

Attention Mr. Cleon B. Feight, Executive Secretary

Re: Suburban Gas Services, Inc. - LPG Storage
Well No. 1, NE¼ NW¼ Section 35, Township
26 South, Range 21 East, SLBM, Grand County

Gentlemen:

I have your letter of March 3, 1960. The rig that was on location on the subject LPG Storage Well was a small test hole rig used to pick up a marker and check drilling problems we might encounter with the big rig. The total depth of this test hole was 510 ft. The test rig has now been moved off.

You should have the bond on our actual LPG well location prior to the time you receive this letter.

I wish to assure you that we will comply with the rules and regulations of your commission.

Yours very truly,

Neal E. Van Fossan
Manager, Storage & Terminals

NEVF:bh

TEXAS NATURAL GASOLINE CORPORATION
800 ENTERPRISE BUILDING
TULSA 3, OKLAHOMA

March 8, 1960

Oil & Gas Conservation Commission
The State of Utah
Salt Lake City, Utah

Gentlemen:

Attached you will please find the original of our bond application for drilling a well in the NE/4 NW 1/4 Section 35, TWP 265, R 21 E-SLBM, Grand County, Utah.

We believe the papers are in order with your rules and regulations.

If any violation should arise, please contact the writer.

Sincerely,

Gene Curbow

GC:mb
Enc.

March 10, 1960

Mr. Neal E. Van Fossan
Manager, Storage & Terminals
Texas Natural Gasoline Corporation
800 Enterprise Building
Tulsa 3, Oklahoma

Dear Mr. Van Fossan:

This office is in receipt of your bond from the Aetna Casualty and Surety Company covering the well which you intend to drill in the NE¼ NW¼ of Section 35, Township 25 South, Range 21 East, SLBM.

It is suggested that if the disposal well is to be located on private land, you attach an endorsement on this bond covering said well. This will, of course, save you the expense of another bond.

Approval is hereby granted to drill the LPG storage well No. 1 in the NE¼ NW¼ of Section 35, Township 26 South, Range 21 East, SLBM, Grand County, Utah.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
EXECUTIVE SECRETARY

CBF:co

cc: Suburban Gas Service, Inc.
Pomona, California

a W.D.

UNION TEXAS NATURAL GAS CORPORATION

800 ENTERPRISE BUILDING
TULSA 3, OKLAHOMA

May 4, 1960

Utah Oil & Gas Conservation Commission
310 Newhouse Building
10 Exchange Place
Salt Lake City 11, Utah

Attention Mr. Jack Fite , Executive Secretary

Gentlemen:

I am enclosing herewith copies of logs run on our LPG storage well #1 and disposal well #1. I will forward completion reports on these wells at a later date.

If you require additional information, please do not hesitate to call on me.

Yours very truly,

Neal E. Van Fossan

Neal E. Van Fossan
Manager, Storage & Terminals

NEVF:bh
enc.

Suburban Gas Service Inc. project at MOAB, UTAH
Van

Caliper
Gamma-Ray Neutron

May 4, 1960

Mr. E. J. Mayhew
Consulting Geologist
Rooms 3 and 4, Arches Building
Moab, Utah

Dear Jay:

Commissioner Thomson has informed us that you plan to run a Gamma-Ray Neutron Log on the Suburban Gas LPG Storage Well No. 1.

We would certainly appreciate receiving a copy of Gamma-Ray Log if and when it should become available. If you will send us a copy of the log, we will be happy to make a duplication of it for our files and return your copy back to you.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
EXECUTIVE SECRETARY

CBF:co

UNION TEXAS NATURAL GAS CORPORATION

EIGHT HUNDRED ENTERPRISE BUILDING TULSA OKLAHOMA TELEPHONE LUTHER 4-1421

March 7, 1961

State of Utah
Oil & Gas Conservation Commission
State Capitol Building
Salt Lake City 14, Utah

ATTENTION: Mr. C. B. Feight, Executive Secretary

Gentlemen:

We refer to attached photostats of drilling and development bonds covering operations supervised by Union Texas Natural Gas Corporation in Grand County, Utah during 1960.

The bonds are due for renewal this month.

We respectfully request that the Commission waive further bonding requirements on the subject wells on the following grounds:

1. The LPG Storage well #1 was not drilled for the purpose of exploring for oil or gas.

2. LPG Storage well #1 is an operational storage facility that has a useful life of many years and is not susceptable to plugging in the sense of general oil field practices.

3. The salt water disposal well was developed by re-entry of an existing, but plugged and abandoned, potash test hole. It was not drilled by this Corporation. It was not originally drilled nor was it re-entered for the purpose of exploring for oil or gas.

4. The salt water disposal well is a necessary adjunct to operations of the LPG storage well. It will be used periodically during the operational life of the LPG storage well.

We trust that the Oil and Gas Commission will grant an exception to Rule C-1, under the terms of paragraph (a) of the General Rules and Regulations and Rules of Practice and Procedure, in regard to these two wells.

Our Corporation assisted Suburban Gas (the Owner of LPG Storage well #1 and authorized user of the salt water disposal well) in the development of these facilities. Various permits were obtained under our name. The facilities were completed on September 15, 1960 and were turned over to Suburban Gas on that date.

In the event that the Commission does not grant the above requested exceptions we ask that recognition be given to the fact that (in effect) a transfer of property has been made and release Union Texas Natural Gas Corporation from the bonding obligation.

The transferee, for the purpose of ownership and operations, is

Home Gas Service
Moab, Utah

We understand that Home Gas Service is a subsidiary of Suburban Gas and have requested, via carbon copy of this letter to Suburban Gas, that they either confirm this fact or give you proper ownership if such differs from the above.

Yours very truly,

UNION TEXAS NATURAL GAS CORPORATION

N. E. Van Fossan
Engineer

NEVF/pw

Enclosure

File in storage well 7-9

March 13, 1961

Mr. N. E. Van Fossan,
Engineer
Union Texas Natural Gas Corp.
800 Enterprise Building
Tulsa, Oklahoma

Dear Mr. Van Fossan:

As per your request of March 7, 1961, this letter is to advise you that liability under the bonds issued by The Aetna Casualty and Surety Company is hereby terminated. Said bonds were in the sum of $5,000.00 and covered the following described wells:

LPG Storage Well No. 1, Northeast Quarter (NE¼)
Northwest Quarter (NW¼), Section Thirty-five (35),
Township Twenty-six (26) South, Range Twenty-one (21)
East, SLBM, Grand County

and

Salt Water Disposal Well, Southeast Quarter (SE¼)
Northwest Quarter (NW¼), Section Thirty-five (35),
Township Twenty-five (25) South, Range Twenty-one (21)
East, SLBM, Grand County

At this time we would like to express our appreciation for your courtesy and cooperation concerning this matter.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT,
EXECUTIVE SECRETARY

CBF:swg
cc: The Aetna Casualty & Surety Co.

BEFORE THE BOARD OF OIL AND GAS CONSERVATION
DEPARTMENT OF NATURAL RESOURCES
in and for the STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF WILLIAMS ENERGY COMPANY FOR AN ORDER AUTHORIZING WATER PRODUCED FROM PROPANE UNDERGROUND SALT STORAGE CAVERN INTO OLD DISPOSAL WELL, GREAT LAKES - STATE NO. 1, SECTION 35, TOWNSHIP 25 SOUTH, RANGE 21 EAST, SLBM, GRAND COUNTY, UTAH, OR TO CONSTRUCT A NEW SALT WATER DISPOSAL PIT AND TO INCREASE THE CAPACITY OF SAID CAVERN.	ORDER CAUSE NO. 147-1

Pursuant to the Application of Williams Energy Company, this cause came on for hearing before the Board of Oil and Gas Conservation, Department of Natural Resources, State of Utah, at 10:00 A.M., Wednesday, March 14, 1973, in the Governor's Board Room, Second Floor-State Capitol Building; and continued at 9:00 A.M., Wednesday, April 25, 1973, in the Wildlife Resources' Auditorium, 1596 West North Temple, Salt Lake City, Utah.

The following Board Members were present:

Guy N. Cardon, Chairman, Presiding

Charles R. Henderson

Robert R. Norman

Evart J. Jensen

James P. Cowley

Also Present:

Cleon B. Feight, Esq., Director, Division of Oil and Gas Conservation

Paul W. Burchell, Chief Petroleum Engineer, Division of Oil and Gas Conservation

Paul E. Reimann, Special Assistant Attorney General

Gerald R. Daniels, District Engineer, United States Geological Survey

Appearances were made as follows:

For the Applicant: Verl Ritchie, Esq., Salt Lake City, Utah

For the Opposition: Leo Ware

Alan Cook

Russ Donahue

NOW, THEREFORE, the Board, having considered the testimony adduced and the exhibits received at said hearing, and being fully advised in the premises, now makes and enters the following:

FINDINGS

1. That the Board has jurisdiction over the matter covered by said application and over all parties interested therein, and has jurisdiction to make and promulgate the Order hereinafter set forth.

2. That Williams Energy Company purchased the gas storage facility under consideration sometime in February, 1971, and that Mr. Cook and Mr. Ware purchased the adjoining property approximately 10 months ago.

3. That Mr. Alan Cook and Mr. Leo Ware appeared in opposition to the application.

4. That due and regular notice of the time, place, and purpose of the hearing was given to all interested parties, including Mr. Cook and Mr. Ware, as required by law and the Rules and Regulations of the Board.

5. That the hearing was continued for over 30 days to allow Mr. Cook and Mr. Ware to submit additional testimony and evidence.

6. That the application has already received the approval of the Water Pollution and Control Board.

7. That the applicant is engaged in the business of distributing natural gas (propane) to ultimate consumers in the surrounding area.

8. That, with the increase in the demand and in the number of firm gas customers in its distribution area, and the developing natural gas shortage, applicant is being required to rely, to an ever-increasing extent, on natural gas storage to be able to meet its firm service requirements during periods of peak demand.

9. That there is sufficient overburden to permit the safe operation of the storage project at the pressures at which it will be operated, and these pressures cannot be reasonably anticipated to have any affect on the natural seismology of the area.

CONCLUSIONS

1. That Mr. Alan Cook and Mr. Leo Ware were given adequate notice and opportunity to appear and be heard.

2. That enlarging the storage cavern and constructing an additional pit will not constitute a hazard to the health and welfare of the community.

3. That the development and operation of this natural gas (propane) storage project can be carried out without adversely affecting the development of and continued surface use of the area, and without any other serious adverse impact on the area.

4. That the successful development and operation of this proposed natural gas (propane) storage project will assist in the conservation of natural gas.

5. That the successful development and operation of this proposed natural gas (propane) storage reservoir is necessary and in the public interest.

ORDER

IT IS THEREFORE ORDERED:

1. That Williams Energy Company be, and is herewith authorized to enlarge its propane gas storage cavern and to construct an additional salt water storage and evaporating pit, provided that:

a. Plans for the construction of, or any changes thereto, of the salt water evaporation and storage pit will be submitted to the Division of Oil and Gas Conservation for approval prior to commencement of any operations thereon.

b. Upon completion of the new evaporation and water storage pit, it is not to be utilized until the the Division of Oil and Gas Conservation has made an on-site inspection and granted verbal approval, based upon its adequacy.

c. As soon thereafter as possible, the old pit is to be re-lined, reconditioned, and submitted to the Division's inspection for approval prior to being utilized again.

2. That Williams Energy Company take such steps as might be necessary to protect any and all surrounding lands from any spillage, overflow, or leakage from this facility.

3. That Williams Energy Company shall take adequate steps to monitor the existing evaporation and storage pits, as well as, the LPG storage facility, for evidence of leakage.

4. That Williams Energy Company submit to this Board semi-annual reports stating the results of its leak-monitoring activities.

5. That the original bore hole drilled for the injection of fresh water to wash out the LPG storage chamber, be located and properly plugged in accordance with the Rules and Regulations of the Division of Oil and Gas Conservation.

6. That the disposal of any water in excess of the capacity of the evaporation and storage pits, must be approved by the Water Pollution Control Board and the Division of Oil and Gas Conservation.

7. That this Order shall remain in full force and effect until further order of this Board.

MADE AND ENTERED this 25th day of April, 1973.

BOARD OF OIL & GAS CONSERVATION

/s/ Guy N. Cardon
Guy N. Cardon, Chairman

/s/ Charles R. Henderson
Charles R. Henderson
Board Member

/s/ Robert R. Norman
Robert R. Norman
Board Member

/s/ Evart J. Jensen
Evart J. Jensen
Board Member

/s/ James P. Cowley
James P. Cowley
Board Member

WILLIAMS BROTHERS ENGINEERING COMPANY

A RESOURCE SCIENCES COMPANY

RESOURCE SCIENCES CENTER | TULSA, OKLAHOMA 74103 | TELEPHONE (918) 583-1711

June 20, 1973

Mr. Robert J. Wiruth
Williams Energy Company
National Bank of Tulsa Building
Tulsa, Oklahoma

Dear Bob:

Attached is a daily log of the plugging operations of the two shallow holes on your Moab Terminal and Propane Storage project. Also enclosed is a sketch of the water well in reference to the pit and depths of the cement plug.

I believe that these two holes are plugged sufficiently to insure that no contamination of the freshwater zone will occur.

We thank you for the opportunity to be of service on this project.

Yours very truly,

WILLIAMS BROTHERS ENGINEERING COMPANY

H. L. Caldwell

HLC:Theo/8205
Enc.

WILLIAMS ENERGY COMPANY
MOAB TERMINAL AND PROPANE STORAGE PROJECT

Daily Log - Plugging of Water Well and Old Hole Near Propane Storage Hole

June 11, 1973 - H. L. Caldwell - Flew from Tulsa to Grand Junction, Colorado, drove to Moab, Utah. Arrived on terminal site at 4:00 P. M. Talked with Lonnie Covington, WBEC inspector on construction and Fred Kanek, WEC terminal operator. Contractor has salt brine pit bottom down to grade. Sides of pit are compacted on 3 to 1 slope. Old water well is covered over in south end of pit about halfway in.

June 12, 1973 - Checked for locations of water well and old well near storage hole. Met with J. D. Wilson, Contractor, about how to use dozer to cut into pit side in an effort to locate well and plug it. Checked with Fred as to location of old hole near storage hole. Probably 25' to 30' southeast of storage hole and is covered over by 2' of fill. Will have dozer driver on location tomorrow morning to locate the two wells.

June 13, 1973 - Moved dozer in and started digging into side of pit. Found 7" casing. Casing broke at weld 5' below outside surface of ground level. Dug down to pit bottom, 14' below surface ground level. Tried to pull 7" casing with winch truck, casing would not move. Obtained backhoe, dug cellar around 7" casing to 6' below grade of pit bottom. Welder cut 7"

casing, 6" from bottom of cellar.

Moved dozer to old hole near storage hole, found 7" casing 1' under surface. Moved back hole, dug 5' deep cellar around old 7" casing. Casing was split and broke off 5' under surface. Called Dowell for cement. Will be on location at 7:00 A. M. tomorrow.

June 14, 1973 - Dowell on location at 7:00 A. M. Rigged up cement trucks on water well, in pit, placed 2" hose 10' below top of cutoff of 7" casing, or 16' below pit bottom. Mixed 100 sacks Class "A" cement, 1/4#/sx flocel, 3% $Ca\,Cl_2$. Spot cement in 7" casing and cellar. W. O. C.

Moved cement trucks to old hole near storage. Placed 2" hose 10' below surface in 7" casing. Mixed 50 sacks Class "A" cement, 1/4#/sx flocel, 3% $Ca Cl_2$. Spot cement in 7" casing and cellar. W. O. C .

June 15, 1973 - Placed 6 yards of ready mix in cellar of water well in pit. Waited on cement to set 3 hours. Started filling cellar and compacting sides of pit to the designed slope. Finished compacting at 5:00 P. M.

June 16, 1973 - Fill cellar and level location around old well near storage hole. Plugging at 2 holes completed.

JOB NO. 8205

CLIENT V.E.C.

SUBJECT Water Well
Moab Terminal
storage Pit

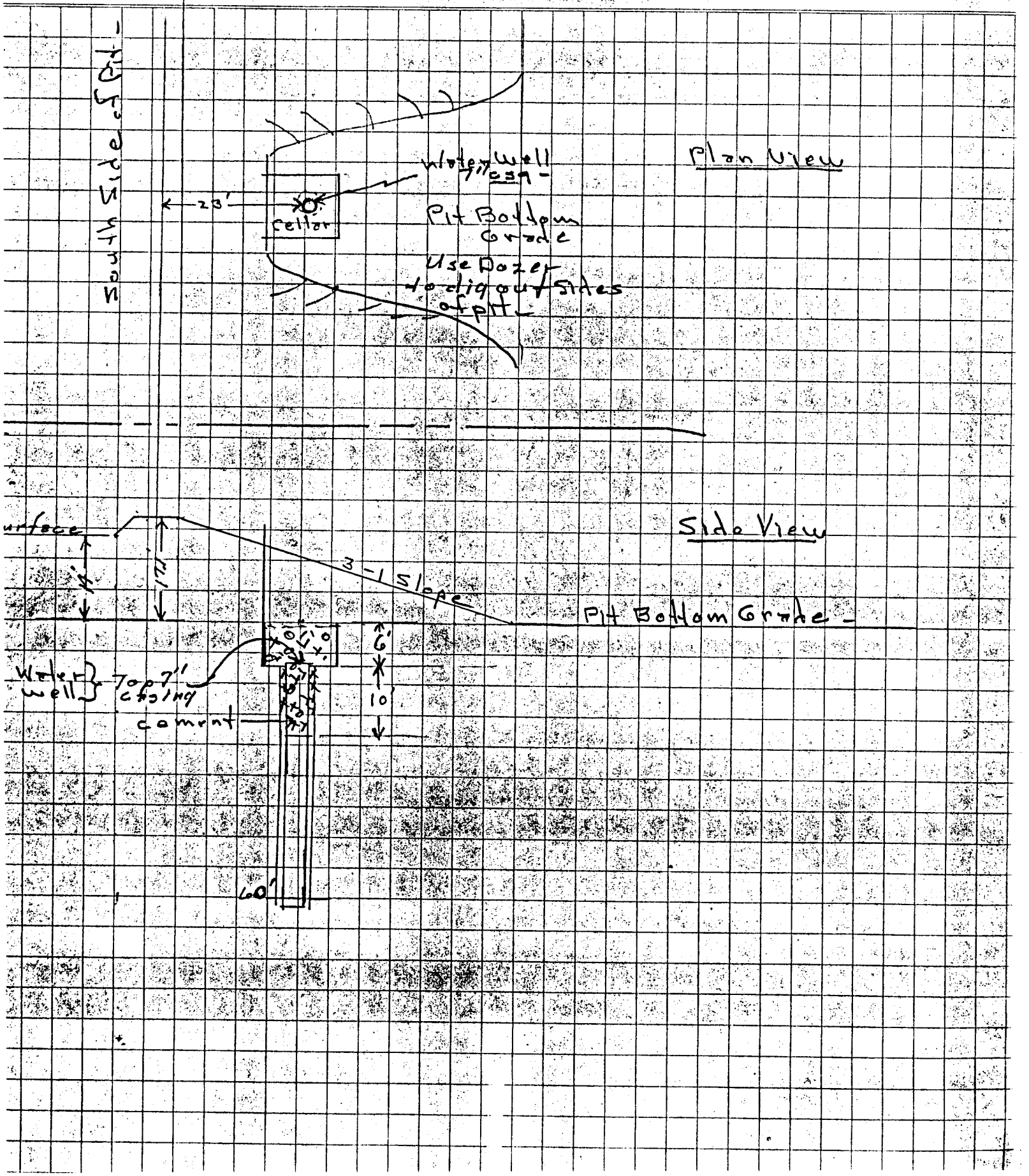
WILLIAMS BROTHERS ENGINEERING COMPANY
A Resource Sciences company
TULSA, OKLAHOMA

SHEET 1 OF 1

DATE 6/20/73

PREPARED BY: H.L.C.

CHECKED BY:



WILLIAMS ENERGY COMPANY

9 EAST FOURTH STREET
P. O. BOX 3478
TULSA, OKLAHOMA 74101
PHONE: (918) 583-1711

July 9, 1973

RJW:445:73

Mr. Cleon B. Feight - Director
Division of Oil and Gas Conservation
Department of Natural Resources
State of Utah
1588 West North Temple
Salt Lake City, Utah 84116

Dear Mr. Feight:

In accordance with Cause No. 147-1, dated April 25, 1973, Williams Energy Company wishes to advise that we have complied with Item No. 5 of the subject order. Attached is a report from H. L. Caldwell, Williams Brothers Engineering Company, outlining the work and methods that he employed to plug the original bore hole. In his report, it is designated as the 7" casing. The work commenced on June 13, 1973, and was completed on June 16, 1973.

In addition, during the construction of the new brine pit, it was necessary to relocate the existing water well. Attached is a drawing explaining how this plugging operation was conducted, along with Mr. Caldwell's note.

Should you have any questions regarding these two items, do not hesitate to contact me. I trust this information is sufficient to allow us to be in compliance with your order.

Very truly yours,

WILLIAMS ENERGY COMPANY

R. J. Wiruth/dh

R. J. Wiruth
Manager of Operations

RJW:dh

Attachments

Form OGC-1b

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER L. P. G. Storage Well

2. NAME OF OPERATOR: Williams Energy Company

3. ADDRESS OF OPERATOR: P. O. Box 3478, Tulsa, OK 74101

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 70' from North Line & 3260' from East Line of Section 35 in NE/4 & NW/4, Township 26S, Range 21E

5. LEASE DESIGNATION AND SERIAL NO.:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME:

9. WELL NO.: LPG #1

10. FIELD AND POOL, OR WILDCAT:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 35-26S-21E

12. COUNTY OR PARISH: Grand

13. STATE: UT

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 3957.5' DF above Sea Level

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☒
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☒	CHANGE PLANS	☐	(Other)			☐
(Other)			☐	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Move in workover rig to pull 3½" tubing in order to run Sonar Caliper on storage cavern. The integrity of all tubular strings will be examined and replaced if necessary. Work is scheduled to begin on 1-22-79.

18. I hereby certify that the foregoing is true and correct

SIGNED Bill Haeffner TITLE Vice Pres DATE Jan 23, 1979

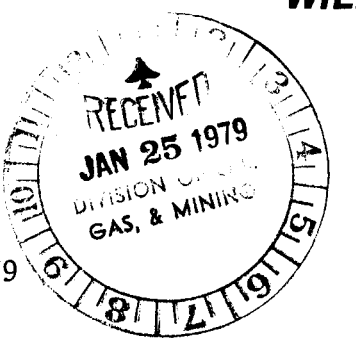
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

WILLIAMS EXPLORATION COMPANY
ONE OF THE WILLIAMS COMPANIES



January 22, 1979

State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
1588 West North Temple
Salt Lake City, UT 84116

ATTN: Mr. Cleon Feight

Gentlemen:

Re: Sundry Notices and Reports on Wells
L.P.G. Storage Well No. 1
Section 35-26S-21E
Grand County, UT

Enclosed please find in triplicate the referenced form. If additional information is needed, please advise.

Very truly yours,

T. G. Maynor

T. G. Maynor
Drilling Engineer

/ch

Encl.

cc: David Shaeffer

One Williams Center • P. O. Box 3102 • Tulsa, Oklahoma 74101
(918) 588-2000

Well file
F&S Storage # 2
Sec 26, 25S, 21E Grand Co.

FENIX & SCISSON, INC.
5805 EAST FIFTEENTH STREET
TULSA, OKLAHOMA

PLEASE REPLY TO:
P. O. Box 15609
TULSA, OKLAHOMA 74112

PHONE (918) 835-9471
TWX No. (910) 845-2108
CABLE ADDRESS: FENSON TULSA

July 13, 1979

Mr. Cleon B. Feight
Director Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Dear Sir:

You may recall Mr. Tom Young and myself discussing with you the morning of May 24th that Williams Energy Company had retained Fenix & Scisson of Tulsa, Oklahoma to construct a new storage cavern on Williams Energy's property at Moab, Utah. An application to drill the well should be on your desk the week of July 16th.

It will be necessary to have a disposal well to handle the waste brine. It is planned to convert the present storage well #1 to a disposal well. Attached to this letter is a plat (figure 1) showing the relative locations of Storage Wells #1 and #2. Also, the relative location of the Great Lake Carbon Co's well which has been utilized as a disposal well a couple of times in the past. Figure 2, attached, shows the present construction of Storage Well #1.

It is planned to utilize the lost circulation zone at 800 feet as the disposal zone in Storage Well #1. This is the same formation (Paradox) that has been utilized as a disposal zone in the Great Lakes Carbon well. Records indicate that during 1961 this well accepted brine at 400 gpm with 35 psi surface pressure.

Logs will be run in Storage Well #1 to identify the formations. In addition the selected formation will have to be segregated by cement and bridge plugs. It should be pointed out that potable water is adequately protected with the present construction.

Below are brief preliminary answers to the various points presented in "Rule C-11-Procedure for Underground Disposal of Water" that have not already been covered.

At this time it is believed that there are no lesses in the area. However, this will be double checked before the proper forms are filled out and presented to your Division.

The source of the disposed brine will be the waste utilized in solutioning Storage Well #2. The daily amount of brine circulated and disposed of will be approximately 10,000 bbls. for a total of approximately 1,400,000 bbls. during the cavity solutioning period.

Would you please send us the forms to start the necessary procedures so we can convert Storage Well #1 to a Disposal Well.

Should you have any questions regarding this matter please contact me or Mr. Young of this office.

Anything you can do to expedite the required procedure will be greatly appreciated.

Thanking you in advance

J. K. Henderson

cc: Mr. D. W. Shaffer
Vice President
Williams Energy Co.

Mr. Tom Young
Fenix & Scisson, Inc.

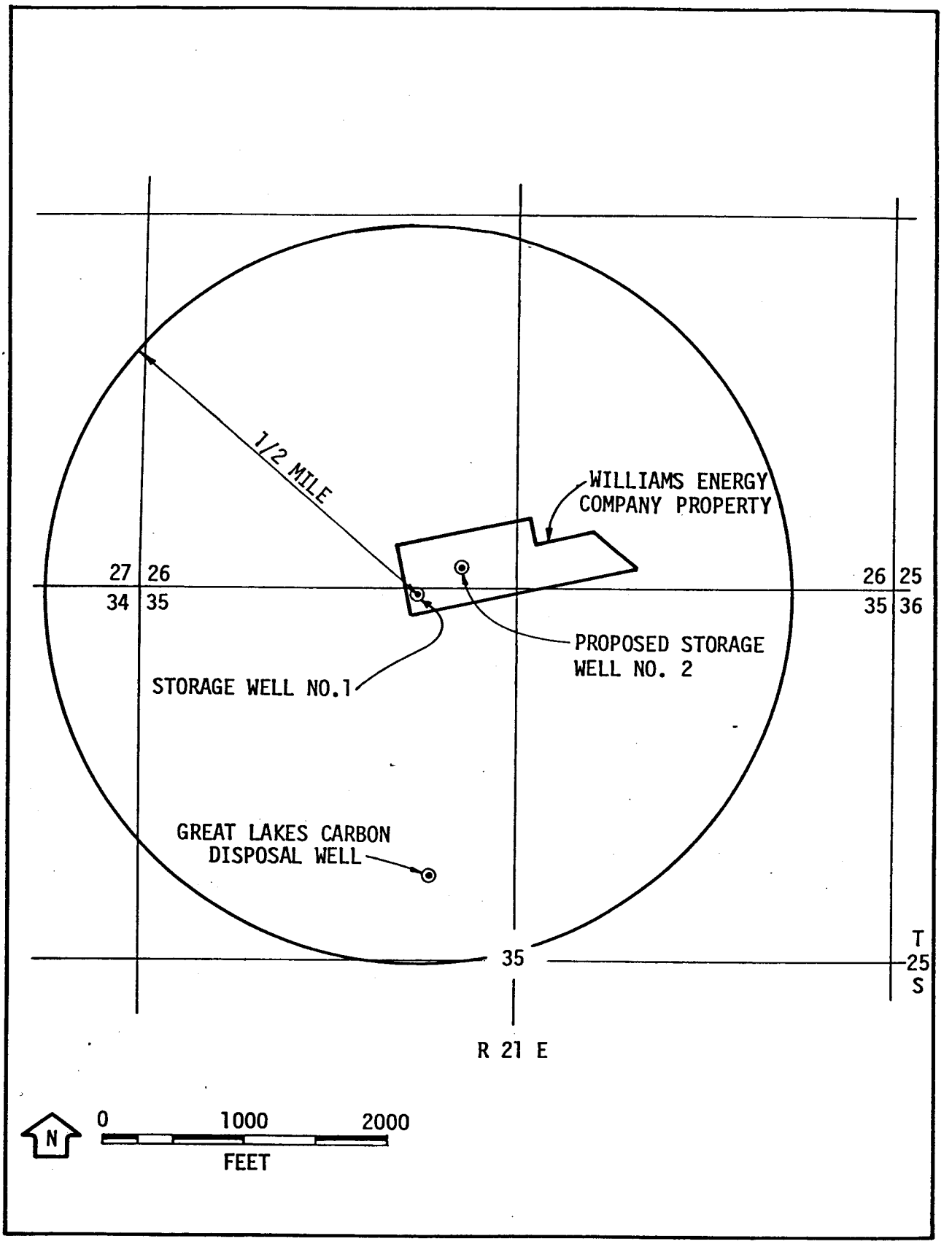


Figure 1. Location of Storage Well NO.1 Proposed to be Converted to Disposal Well NO.1

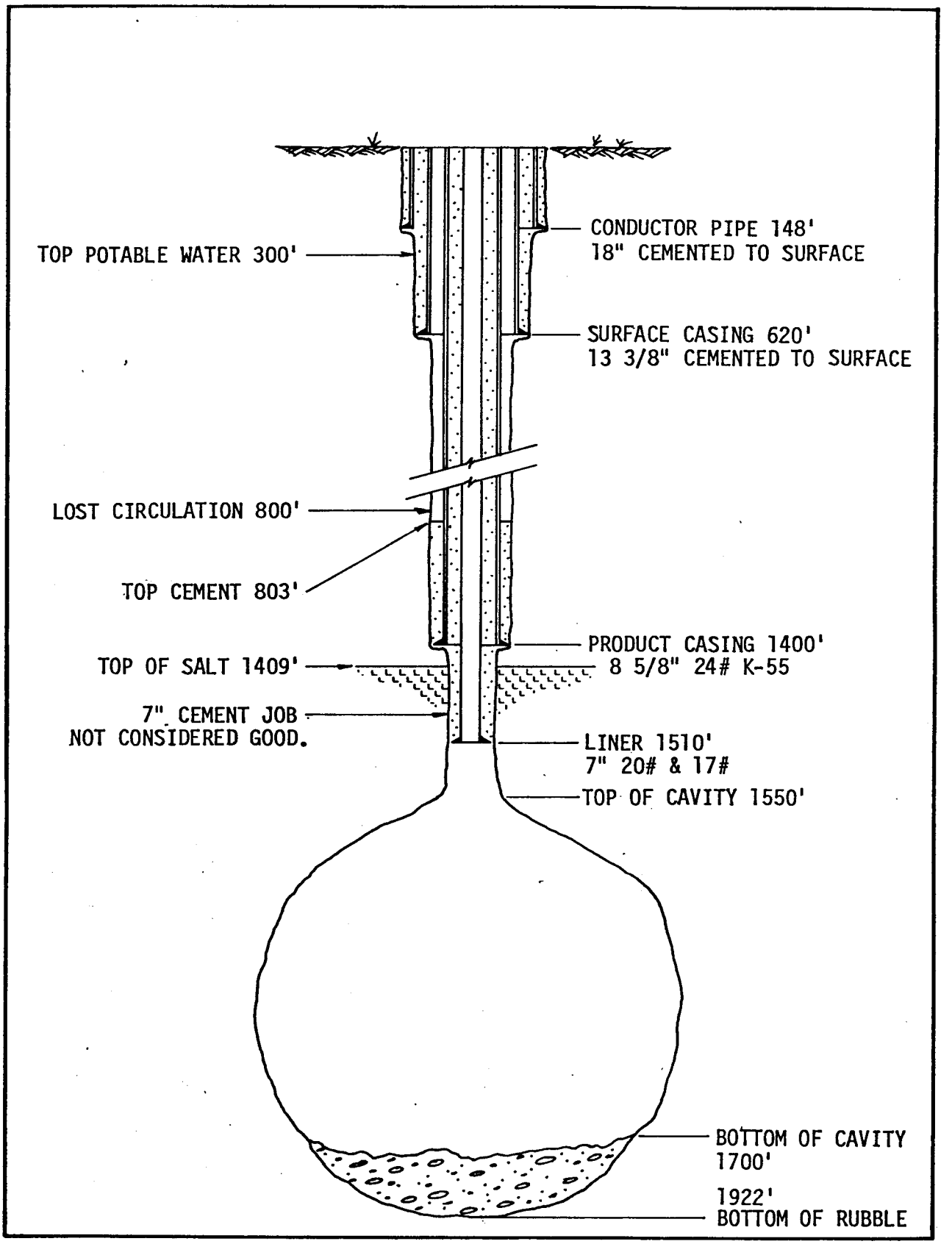
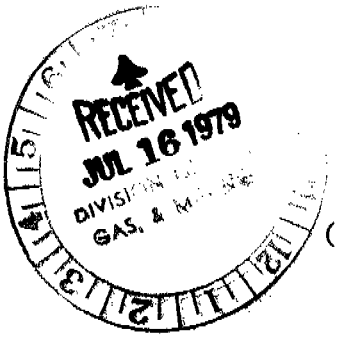


Figure 2. Sketch Showing Present Construction of Storage Well NO.1



BUCKEYE GAS PRODUCTS COMPANY
P. O. Box 3478
Tulsa, OK 74101
(Formerly Williams Energy Company)

918 - 586 2000

July 13, 1979
DWS:125:79

Oil, Gas & Mining Division
Department of Natural Resources
1588 West North Temple
Salt Lake City, UT 84116

ATTN: Mr. Fite

Dear Mr. Fite:

Attached are three copies of our application to drill for a salt solution well at Moab, Utah. Our insurance company, Alexander & Alexander are processing the bond which will be forwarded to you at the earliest possible moment.

Very truly yours,

D. W. Shaeffer
Manager, Underground Storage

DWS:tlw

cc: Mr. Keller Henderson
Fenix & Scisson, Inc.

FENIX & SCISSON, INC.
1401 SOUTH BOULDER
TULSA, OKLAHOMA 74119
918/560-5000
TWX 910-845-2108

August 17, 1979

Mr. Cleon B. Feight
Director Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Dear Mr. Feight:

This letter will confirm our telephone conversation of this morning, August 17, 1979. We, Fenix & Scisson, Inc., are engineering the construction of new LPG storage well for Buckeye Gas Products Company (Williams Energy Company) on their Moab, Utah property.

The new well is to be completed in the Paradox Salt Formation. The cavity will be washed at a rate of approximately 10,000 barrels per day for a total of 1.8 million barrels in approximately 6 months. Buckeye seeks permission from the Sate of Utah's Division of Oil, Gas and Mining to dispose of this brine by converting old Storage Well #1 into a disposal well. Figure 1 attached shows the relative location of old Storage Well #1 and the new proposed Storage Well #2.

While drilling Storage Well #1 lost circulation was experienced at 800 feet. This is geologically the same depth as the disposal zone, utilized when developing the cavity of Storage Well #1, in the Great Lakes Carbon well approximately 2,000 feet south of Storage Well #1. Records indicate that during 1961 the Great Lakes Carbon well accepted brine at 400 gpm with 35 psi surface pressure. This well had perforations at 858-874 and 886-896 feet. (See figure 1) It is planned to use this same zone in Storage Well #1 as the disposal zone.

Logs will be run in Storage Well #1 to identify the formations and injection tests made to test the zone's acceptability of brine. In addition the selected formation will be segregated by cement and bridge plugs. It should be pointed out that potable water has been adequately protected with the present construction. Figure 2, attached, shows the present construction of Storage Well #1. Figure 3 shows how the well will be converted so it can safely be utilized as a disposal well.

Respectfully submitted

J. K. Henderson

JHK:kp
cc: A. Smith
D. Jussaume
D. Shaffer

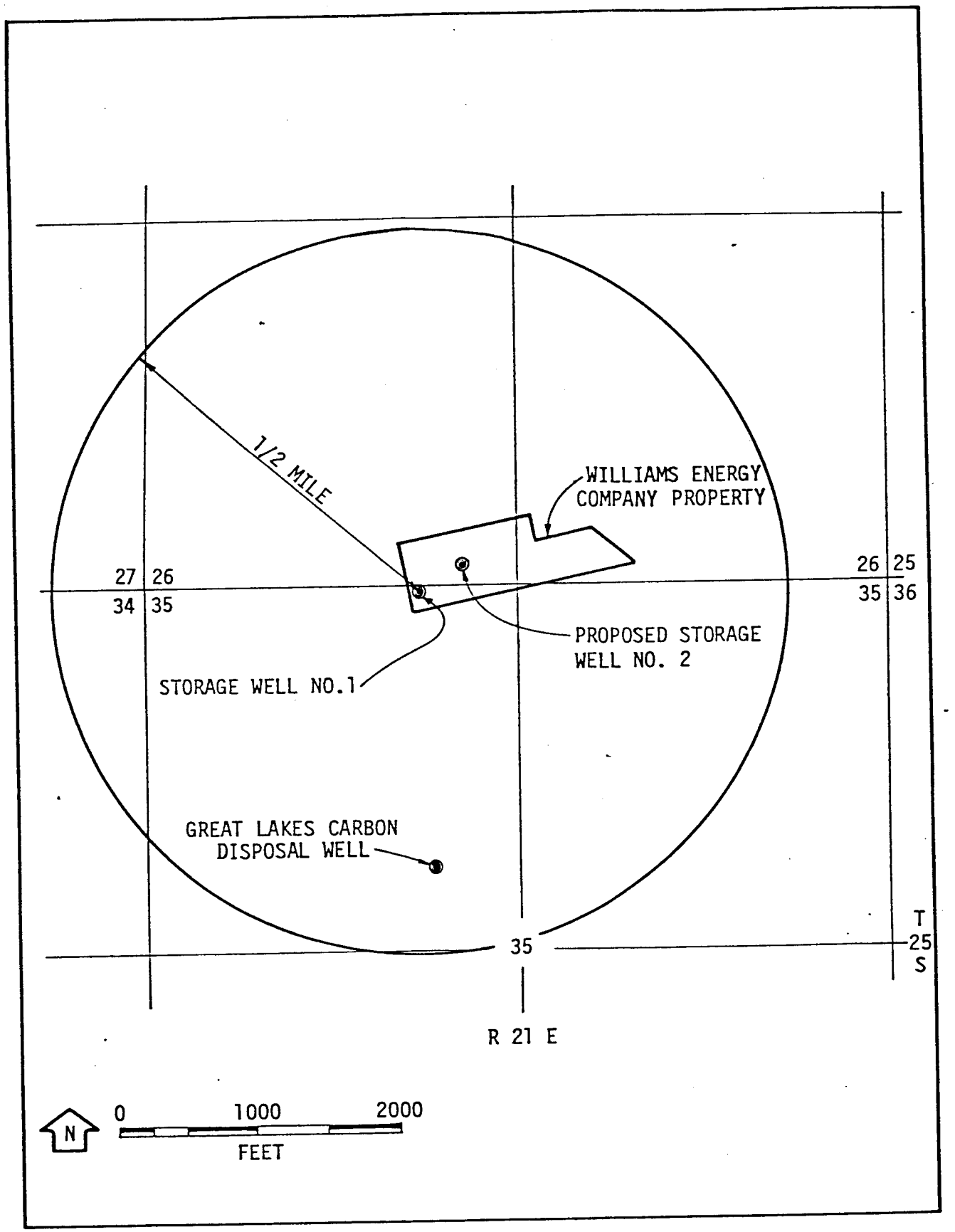


Figure 1. Location of Storage Well NO.1 Proposed to be Converted to Disposal Well NO.1

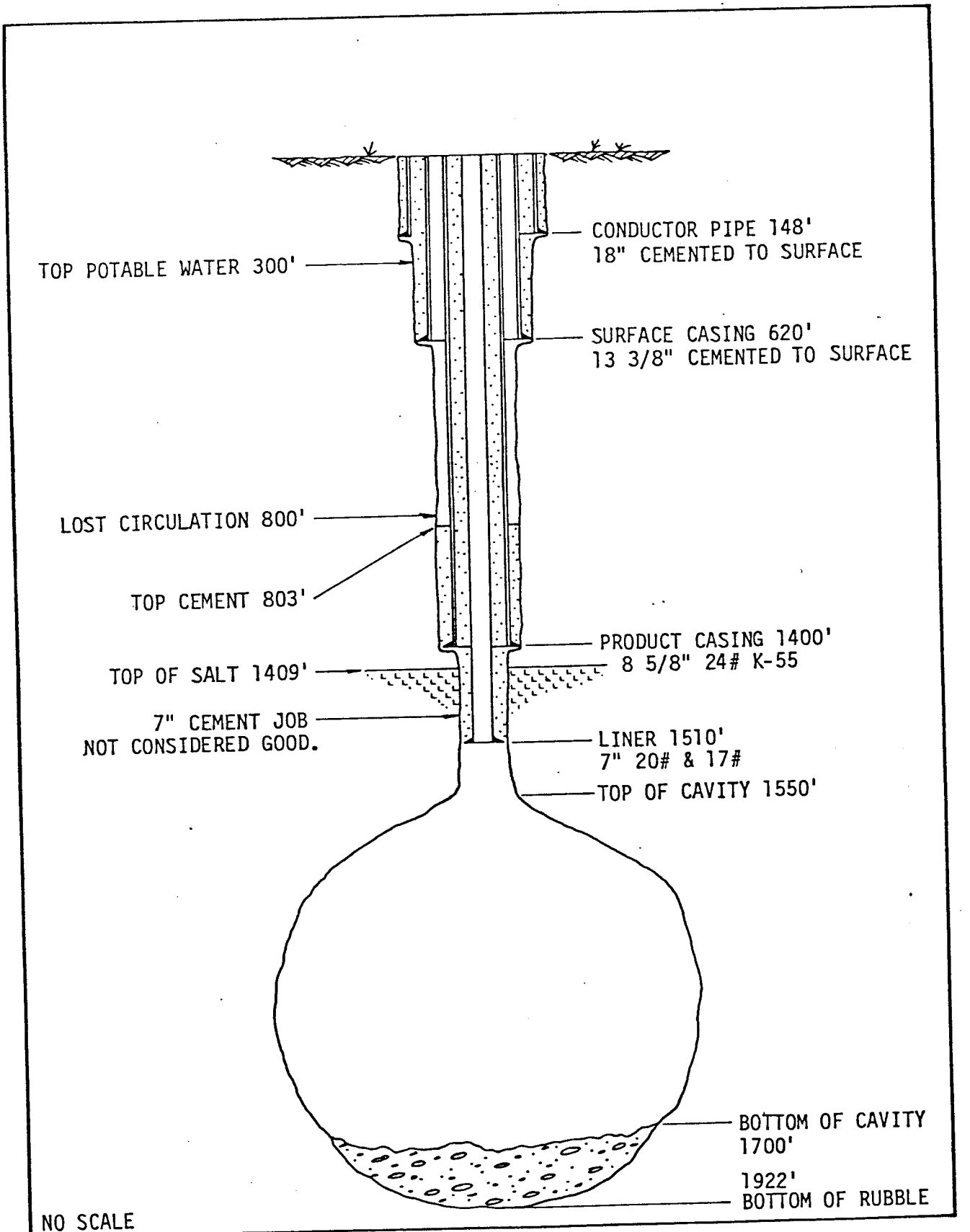


Figure 2. Sketch Showing Present Construction of Storage Well No.1

FENIX & SCISSON, INC.
1401 SOUTH BOULDER
TULSA, OKLAHOMA 74119

918/560-5000
TWX 910-845-2108

December 13, 1979

Mr. Cleon B. Feight
Director Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Subject: Buckeye Gas Products
Brine Disposal

Dear Mr. Feight:

Your office approved the drilling of Buckeye Gas Storage Well No 2 (API 43-019-30534) by letter dated August 10, 1979, from Mr. Minder. To construct the cavern, we plan to dispose of brine into the Williams Energy (now Buckeye Gas Products) Storage Well No. 1.

In order to make the most competent and efficient disposal into Storage Well No. 1, we propose to inject into the lost circulation zone at approximately 800 feet through perforations. A well schematic is attached.

Storage Well No. 1 has an 18-inch conductor pipe set at 148 feet, 13 3/8-inch surface casing set at 620 feet, and 8 5/8-inch product casing set at 1,400 feet on the original completion. a 7-inch inner casing string was set last year at 1510 feet but is not part of disposal security.

Previously, our office had advised a bridge plug would be set in the 7-inch below the perforated interval. I called your office Friday for permission to delete the bridge plug for the following reasons:

(1) If set would not contribute to disposal security.

(2) If set would cause difficulty in construction of Cavern No. 2 as brine from Cavern No. 2 could be injected directly into Well No. 1 if no bridge plug is set. However, if the plug is set, the brine would have to be put into a surface pond and then pumped to disposal. The brine produced from construction of Cavern No. 2 will contain solids and would pile up on top of a bridge plug and cover the perforations if not run through a pond. The solids would then have to be disposed of and as they would be salt contaminated would cause surface pollution.

If no bridge plug is set, the brine can be injected directly from Well No. 2 as the solids would fall into the cavern.

By having the cavern open, we can dispose of our solids, salt, mud, etc., so as not to cause surface pollution.

Please advise any questions. Please call collect - Area code 918/560-5012.

Yours very truly,

Jesse E. Wyrick

JEW:vj

Attachment

cc: D. W. Shaeffer
Manager, Underground Storage
Buckeye Gas Products
P. O. Box 3478
Tulsa, Oklahoma

Ferrellgas

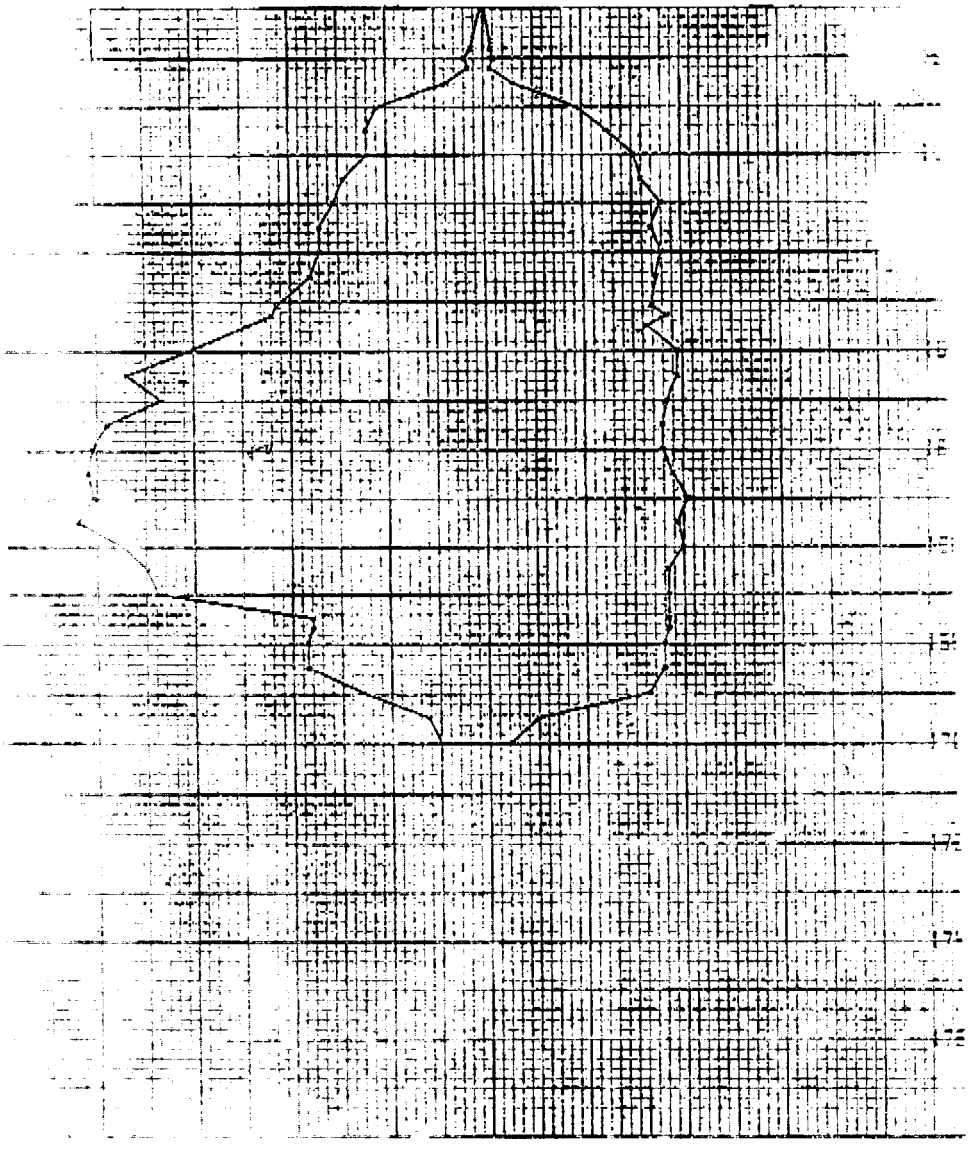
TO: State of UT.

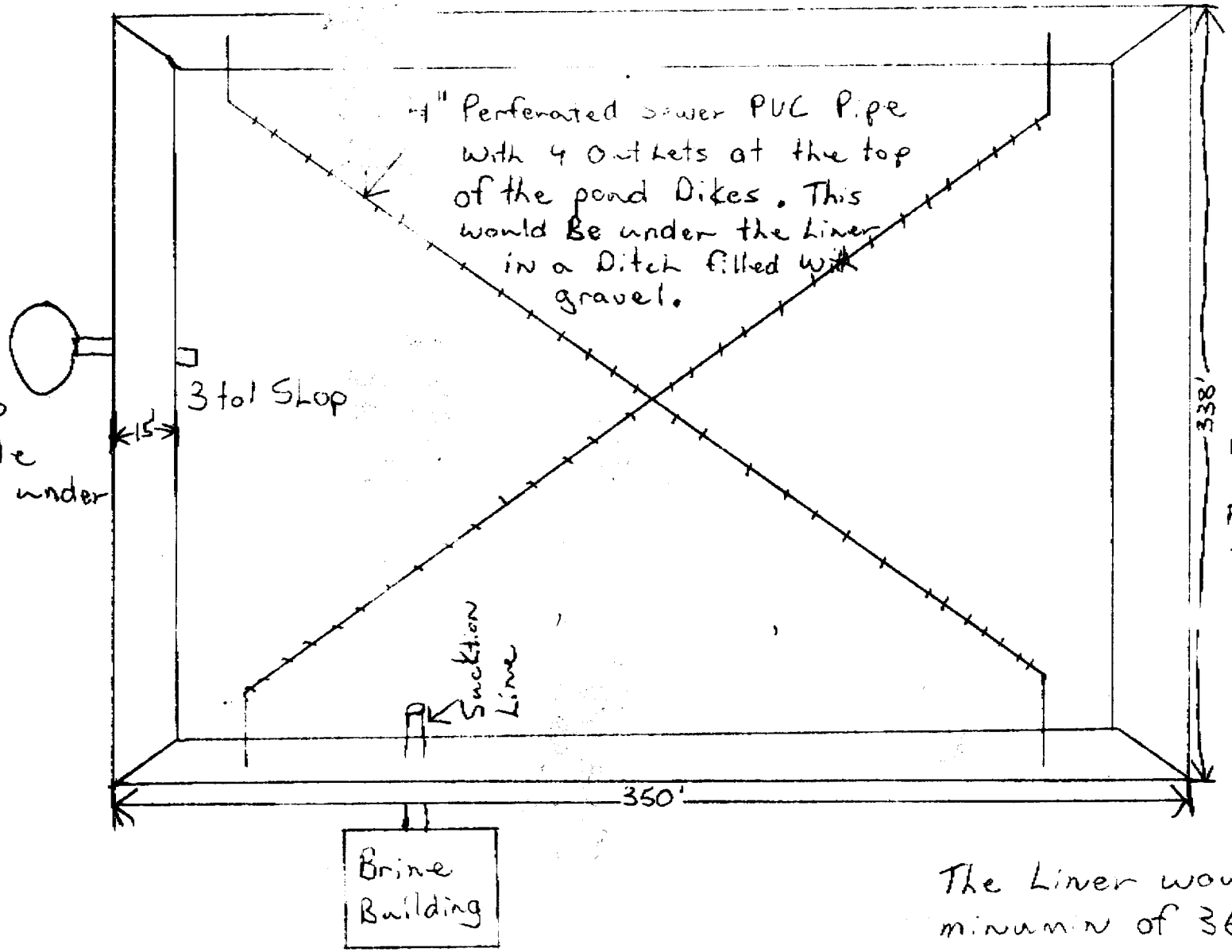
FROM: Ferrellgas, Inc.
Moab Ut. P.O. Box 847 Moab Ut. 84532

ATTN: Brad Hill

Comments: Reline Pond at Moab UT.
Please Call Brad Mallory 801-259-6755

MOAB SALT CAVERN





The Liner would be a minumum of 36 m.l hypalon

FERRELLGAS, INC.
P.O. BOX 847
NORTH HWY. 191
MOAB, UTAH 84532

801-259-6755

MEMORANDUM

October 10, 1997

Subject: Ferrellgas LP Gas Storage Facility, Near Moab Utah

This facility has been a subject of debate since inception as to which agencies have regulatory responsibility over it. Historically the Department of Public Health-Water Pollution Control Board, State Engineer, and Oil and Gas Conservation Commission or their successor agencies have all exercised some authority over it.

Approvals:

The underground disposal of brines associated with this facility have previously been approved by the Oil and Gas Conservation Commission (OGCC), Water Pollution Control Board (WPCB) and possibly the State Engineer. The OGCC and later DOGM/BOGM have approved applications to drill, storage pits, and injection activities. Since those approvals were issued the Department of Environmental Quality was established including the Division of Water Quality (DWQ) and Water Quality Board. The OGCC has evolved into the Division and Board of Oil, Gas and Mining, and the Oil and Gas Conservation Act was completely rewritten and enacted. Also, many other laws and regulations have been implemented such as UIC and state groundwater quality protection regulations.

Current Regulation:

The current Oil and Gas Conservation and Unitization Statute clearly gives the Board authority to regulate underground storage of gas or products and to prevent waste, which I think can be interpreted to include natural gas liquids and facilities such as the Ferrellgas facility. The emphasis here is on preventing the waste of gas, of course the concern about preventing interformational flow and pollution is applicable as with any well regulated under this statute. This well does not meet the definition of a Class II injection well because the hydrocarbons being injected are not liquid at standard temperature and pressure and thus does not fall under jurisdiction of our UIC program. Any wastes generated by the facility would not be considered E&P Wastes and thus would not enjoy the RCRA exemption.

Recommendation:

My interpretation is that this facility remains, as it was in 1960, under dual state

agency jurisdiction. DOGM should permit the drilling and completion, plugging and gas conservation activities at the facility. Division of Water Quality should permit the injection activities that fall under their program and permitting of any holding ponds or discharges. No formal written agreement between agencies has been found although a memorandum to the OGCC date March 2, 1960, references an agreement (verbal?) that the OGCC would accept primary responsibility for the project. I don't believe a formal agreement is necessary at this time. The possible overlap for regulation of activities associated with the well should not be a problem since both agencies/programs are working toward basically the same ends. DOGM holds a plugging bond for the well and should coordinate with DWQ on recommendations relative to plugging and or well repair. Each agency should contact the other when any enforcement actions are being considered for the facility.

Reference Documents:

Memorandum to Oil and Gas Conservation Commission from Executive Secretary, Cleon B. Feight, March 2, 1960.

Letter to Suburban Gas Service, Inc. from Utah Water Pollution Control Board, Executive Secretary, Lynn M. Thatcher, March 30, 1960.

Board of Oil and Gas Conservation, Order, Cause No. 147-1, dated April 25th, 1973.

DOGM well files including various documents.

Utah Code 40-6, Admin. Code R649-1 et seq

Gil Hunt
10/10/97

Ferrellgas, Inc.

One Liberty P
Liberty Missou

Telephone: 816 79

072910

June 29, 1987

State of Utah
Department of Natural Resources
Division of Oil, Gas & Mining
Salt Lake City, UT 84116

Re: Bond No. 400 GV 7006
Ferrell, L.P. (Formerly
Buckeye Gas Products Company)

Dear Sirs:

Attached is a new bond issued by St. Paul Fire & Marine Insurance Company issued effective June 12, 1987, in the amount of $5,000. This bond is a replacement of Bond No. 932-16-96-93 issued by American Casualty Company.

If you have any questions regarding this bond, please let me know.

Yours very truly,
Risk Management Department

O. A. Adelman

O. A. Adelman, Jr.
Insurance Supervisor

7/17/87

OA/njp
Attach.

Change of Operator name?

T. 25S R. 21E 5-26
Grand Co.

4.

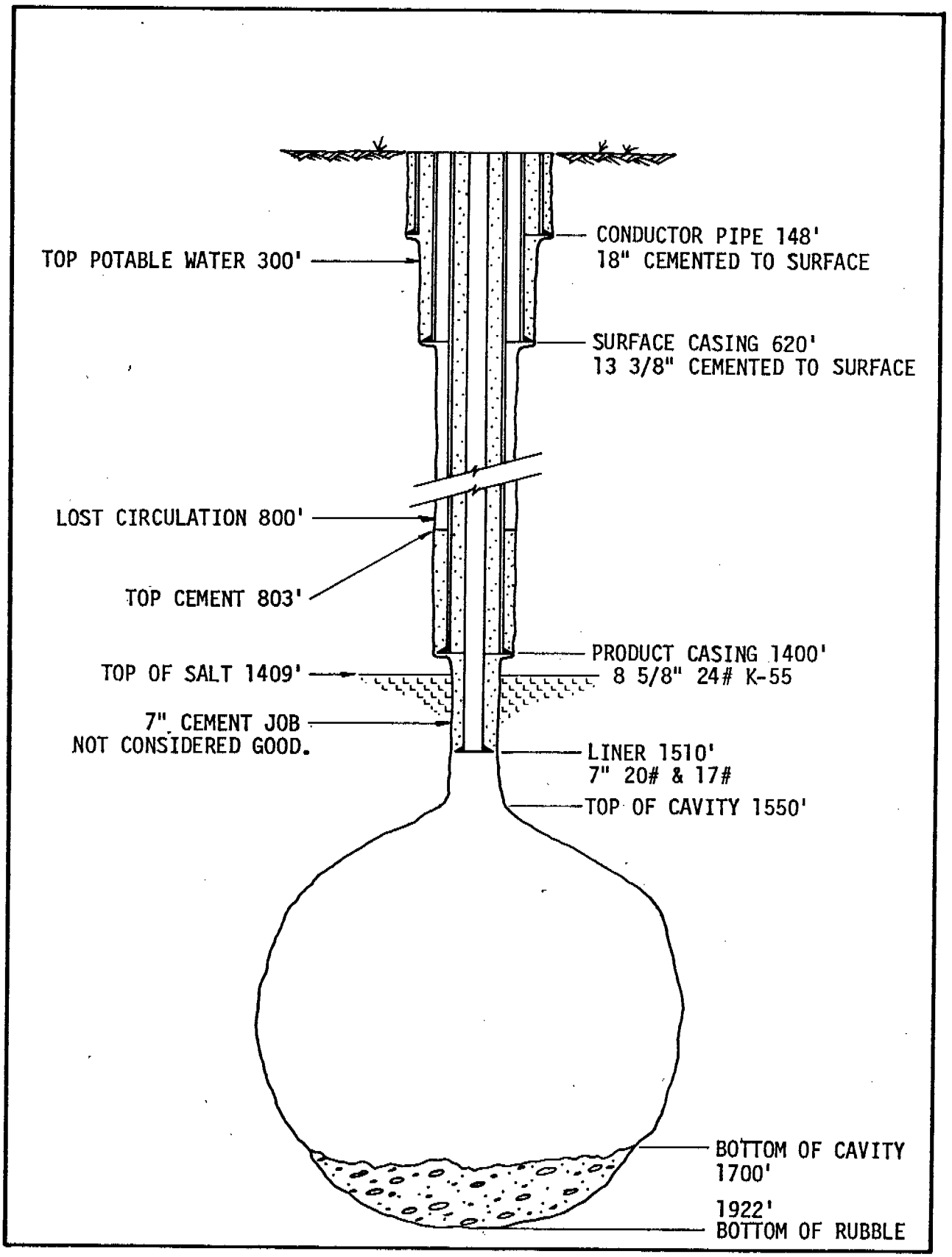


Figure 2. Sketch Showing Present Construction of Storage Well NO.1

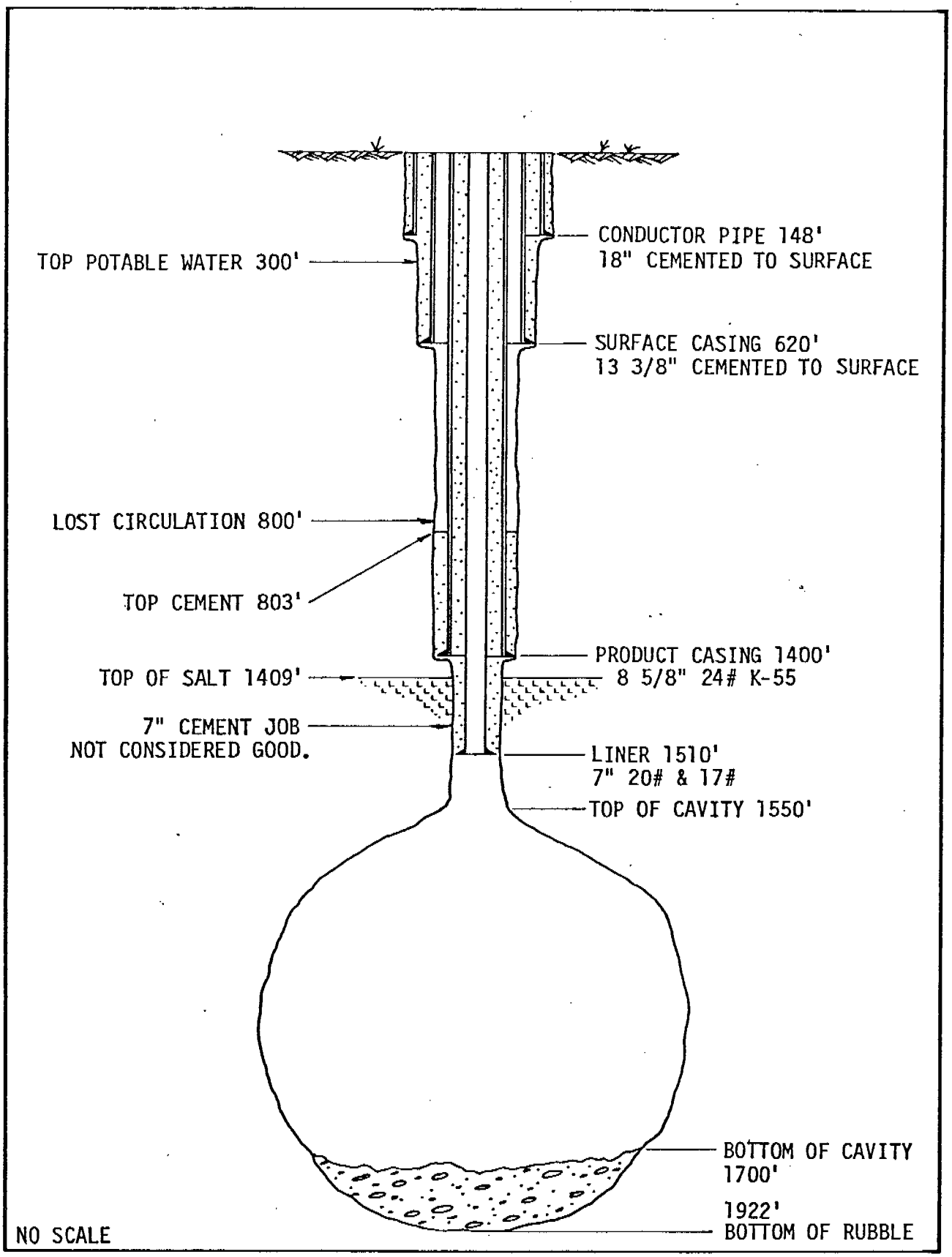


Figure 2. Sketch Showing Present Construction of Storage Well No.1

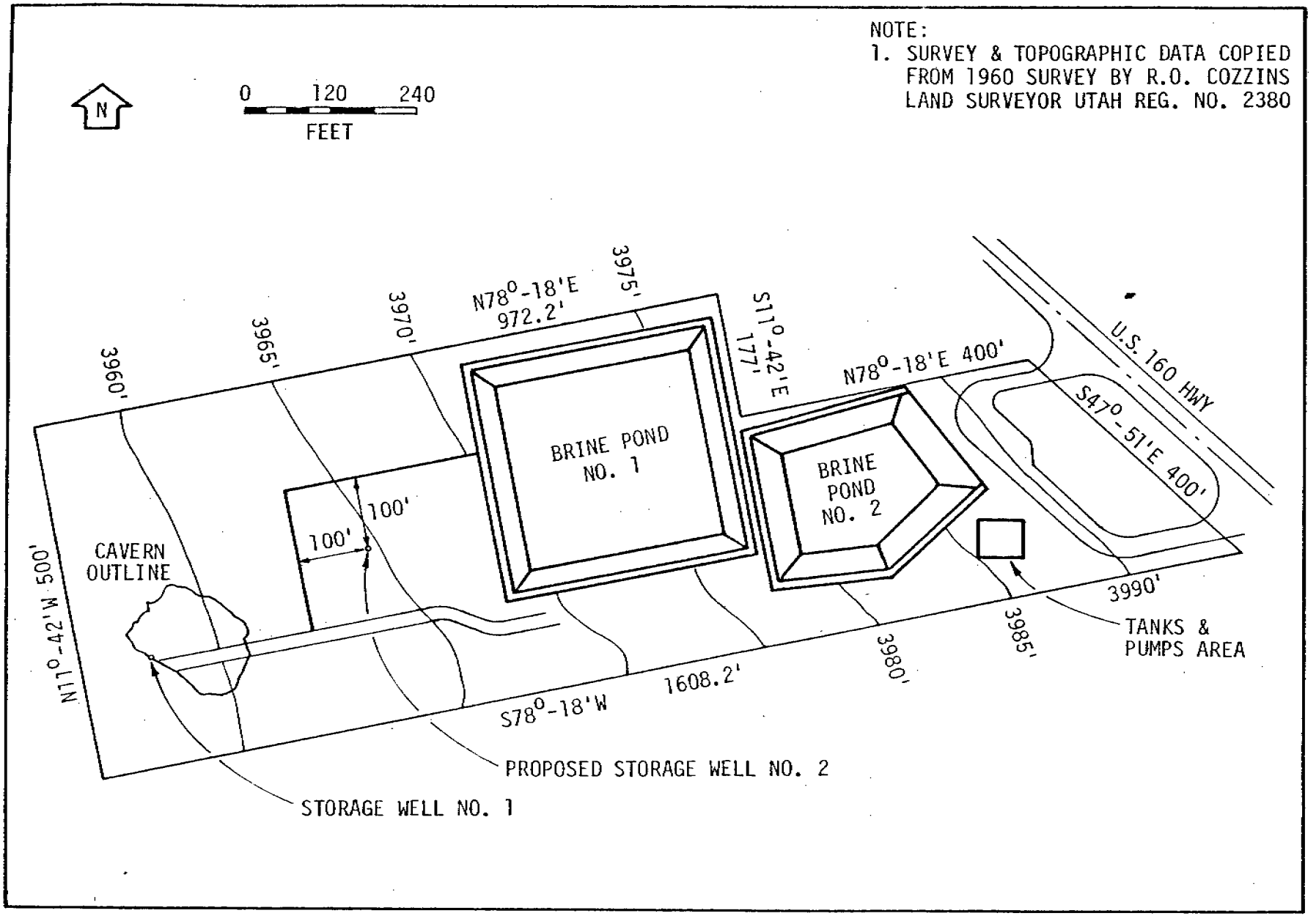


Figure 1. Moab Utah Storage

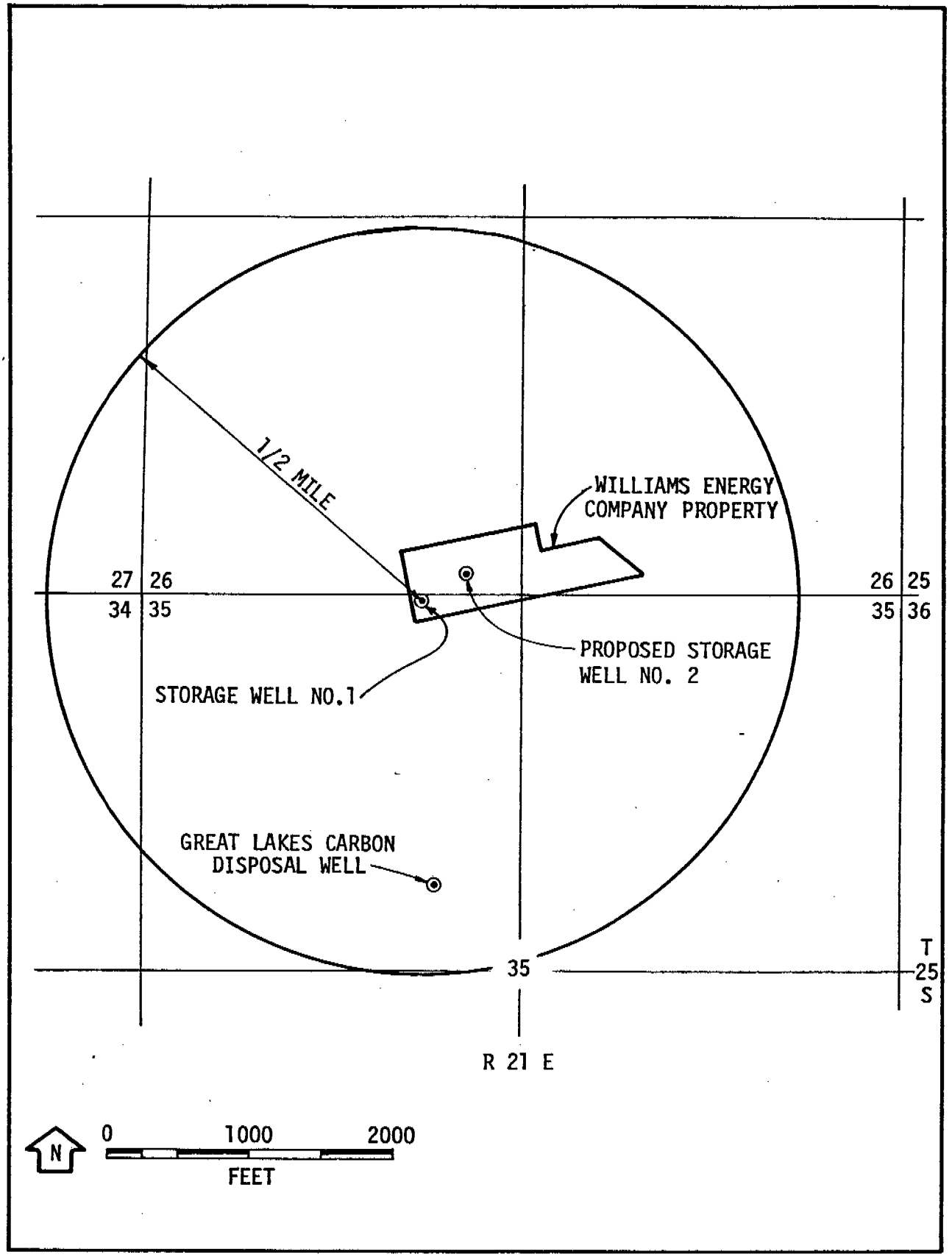


Figure 1. Location of Storage Well NO.1 Proposed to be Converted to Disposal Well NO.1

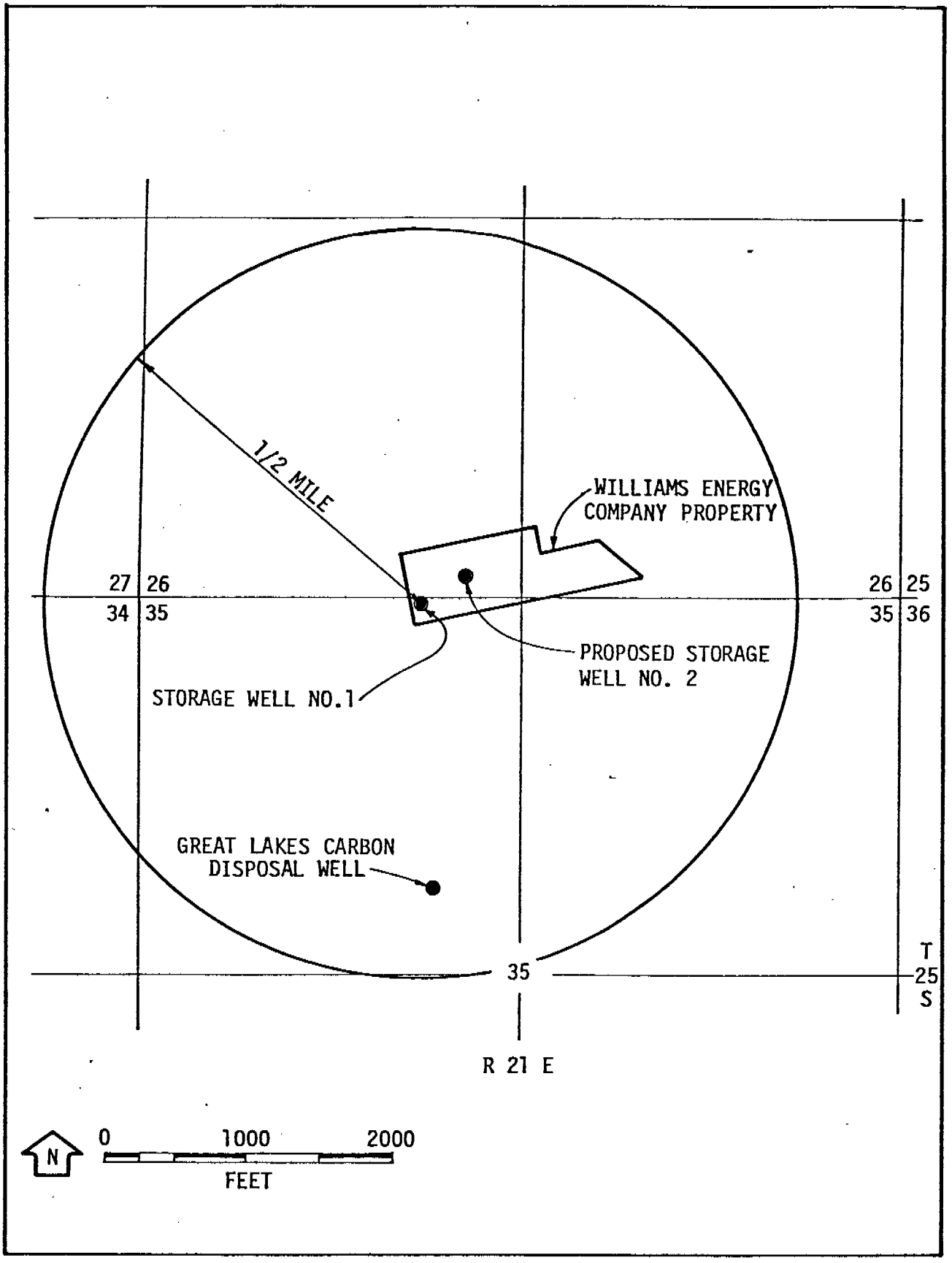


Figure 1. Location of Storage Well NO.1 Proposed to be Converted to Disposal Well NO.1

Ferrellgas

June 23, 1994

UTAH, STATE OF
NATURAL RESOURCES - OIL, GAS & MINING
355 W. NORTH TEMPLE
3 TRIAD CENTER
SUITE 350
SALT LAKE CITY, UT 84180-1203

RE: Bonds

To whom it may concern:

We are changing our name from Ferrellgas, Inc. to Ferrellgas, L.P.

Attached is a rider for bond # U1665530 issued by the United Pacific Insurance Company in the amount of $5,000.00 .
The bond type is "OIL, BLANKET BOND".

The effective dates of this bond are 7/12/93 to 7/12/94.

Please contact me at the address below if:

1. Your address is incorrect.
2. The bond may be cancelled.
3. The bond may be reduced.
4. The bond is incorrect.
5. There is anything else we need to do to effect this change of as far as you are concerned.

I can be reached at: Ferrellgas, L.P.
One Liberty Plaza
Brenda Davis, Mail Drop # 5
Liberty, MO 64068

Phone: (816)-792-7402
Fax: (816)-792-7985

Sincerely,

Brenda C. Davis
Regulatory Compliance Assistant

Enclosures

NAME CHANGE RIDER

This endorsement forms a part of Oil/Gas Bond

Bond Number U1665530 on behalf of Ferrellgas, Inc. effective July 12, 1993, in the amount of Five Thousand and no/100********** Dollars ($5,000.00****) in favor of the State of Utah.

It is hereby understood and agreed that the name of the Principal is changed:

FROM: Ferrellgas, Inc.

TO: Ferrellgas, L.P.

Effective the 30th day of June, 19 94.

SIGNED, SEALED, AND DATED THIS 30th DAY OF June 19 94.

Ferrellgas, L.P.
Principal

By: Rhonda Smiley
Rhonda Smiley / Assistant Secretary

United Pacific Insurance Company
Surety

BY: Katherine D. Corder
Katherine D. Corder, Attorney-in-Fact

RECEIVED
30

UNITED PACIFIC INSURANCE COMPANY

HEAD OFFICE, PHILADELPHIA, PENNSYLVANIA

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, That the UNITED PACIFIC INSURANCE COMPANY, a corporation duly organized under the laws of the State of Pennsylvania, does hereby make, constitute and appoint **Katherine D. Corder., individually, of Raymore, Missouri**, its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver for and on its behalf, and as its act and deed any and all bonds and undertakings of suretyship and to bind the UNITED PACIFIC INSURANCE COMPANY thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the UNITED PACIFIC INSURANCE COMPANY and sealed and attested by one other of such officers, and hereby ratifies and confirms all that its said Attorney(s)-in-Fact may do in pursuance hereof.

This Power of Attorney is granted under and by authority of Article VII of the By-Laws of UNITED PACIFIC INSURANCE COMPANY which became effective September 7, 1978, which provisions are now in full force and effect, reading as follows:

ARTICLE VII - EXECUTION OF BONDS AND UNDERTAKING

1. The Board of Directors, the President, the Chairman of the Board, any Senior Vice President, any Vice President or Assistant Vice President or other officer designated by the Board of Directors shall have power and authority to (a) appoint Attorney(s)-in-Fact and to authorize them to execute on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and (b) to remove any such Attorney(s)-in-Fact at any time and revoke the power and authority given to them.

2. Attorney(s)-in-Fact shall have power and authority, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof. The corporate seal is not necessary for the validity of any bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof.

3. Attorney(s)-in-Fact shall have power and authority to execute affidavits required to be attached to bonds, recognizances, contracts of indemnity or other conditional or obligatory undertakings and they shall also have power and authority to certify the financial statement of the Company and to copies of the By-Laws of the Company or any article or section thereof.

This Power of Attorney is signed and sealed by facsimile under and by authority of the following Resolution adopted by the Board of Directors of UNITED PACIFIC INSURANCE COMPANY at a meeting held on the 5th day of June, 1979, at which a quorum was present, and said Resolution has not been amended or repealed:

> "Resolved that the signatures of such directors and officers and the seal of the Company may be affixed to any such Power of Attorney or any certificates relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such Power so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company, in the future with respect to any bond or undertaking to which it is attached."

IN WITNESS WHEREOF, the UNITED PACIFIC INSURANCE COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed, this 2 day of December, 1993

UNITED PACIFIC INSURANCE COMPANY

Charles B. Schmalz

Vice President

STATE OF Pennsylvania)
COUNTY OF Philadelphia)ss.

On this 2 day of December, 1993 personally appeared Charles B. Schmalz to me known to be the Vice President of the UNITED PACIFIC INSURANCE COMPANY, and acknowledged that he executed and attested the foregoing instrument and affixed the seal of said corporation thereto, and that Article VII, Section 1, 2, and 3 of the By-Laws of said Company,and the Resolution, set forth therein, are still in full force.

NOTARIAL SEAL
VALENCIA WORTHAM, Notary Public
City of Philadelphia, Phila. County
My Commission Expires Nov. 18, 1996

Valencia Wortham

Notary Public in and for State of Pennsylvania
Residing at Philadelphia

I, Anita Zippert, Secretary of the UNITED PACIFIC INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by said UNITED PACIFIC INSURANCE COMPANY, which is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company this JUN 30 1994 day of 19

Anita Zippert

Secretary

BDU-1431 Ed. 3/83

MEMORANDUM

October 10, 1997

Subject: Ferrellgas LP Gas Storage Facility, Near Moab Utah

This facility has been a subject of debate since inception as to which agencies have regulatory responsibility over it. Historically the Department of Public Health-Water Pollution Control Board, State Engineer, and Oil and Gas Conservation Commission or their successor agencies have all exercised some authority over it.

Approvals:

The underground disposal of brines associated with this facility have previously been approved by the Oil and Gas Conservation Commission (OGCC), Water Pollution Control Board (WPCB) and possibly the State Engineer. The OGCC and later DOGM/BOGM have approved applications to drill, storage pits, and injection activities. Since those approvals were issued the Department of Environmental Quality was established including the Division of Water Quality (DWQ) and Water Quality Board. The OGCC has evolved into the Division and Board of Oil, Gas and Mining, and the Oil and Gas Conservation Act was completely rewritten and enacted. Also, many other laws and regulations have been implemented such as UIC and state groundwater quality protection regulations.

Current Regulation:

The current Oil and Gas Conservation and Unitization Statute clearly gives the Board authority to regulate underground storage of gas or products and to prevent waste, which I think can be interpreted to include natural gas liquids and facilities such as the Ferrellgas facility. The emphasis here is on preventing the waste of gas, of course the concern about preventing interformational flow and pollution is applicable as with any well regulated under this statute. This well does not meet the definition of a Class II injection well because the hydrocarbons being injected are not liquid at standard temperature and pressure and thus does not fall under jurisdiction of our UIC program. Any wastes generated by the facility would not be considered E&P Wastes and thus would not enjoy the RCRA exemption.

Recommendation:

My interpretation is that this facility remains, as it was in 1960, under dual state

agency jurisdiction. DOGM should permit the drilling and completion, plugging and gas conservation activities at the facility. Division of Water Quality should permit the injection activities that fall under their program and permitting of any holding ponds or discharges. No formal written agreement between agencies has been found although a memorandum to the OGCC date March 2, 1960, references an agreement (verbal?) that the OGCC would accept primary responsibility for the project. I don't believe a formal agreement is necessary at this time. The possible overlap for regulation of activities associated with the well should not be a problem since both agencies/programs are working toward basically the same ends. DOGM holds a plugging bond for the well and should coordinate with DWQ on recommendations relative to plugging and or well repair. Each agency should contact the other when any enforcement actions are being considered for the facility.

Reference Documents:

Memorandum to Oil and Gas Conservation Commission from Executive Secretary, Cleon B. Feight, March 2, 1960.

Letter to Suburban Gas Service, Inc. from Utah Water Pollution Control Board, Executive Secretary, Lynn M. Thatcher, March 30, 1960.

Board of Oil and Gas Conservation, Order, Cause No. 147-1, dated April 25th, 1973.

DOGM well files including various documents.

Utah Code 40-6, Admin. Code R649-1 et seq

Gil Hunt
10/10/97

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Acting Director

March 2, 2005

Mr. Brad Mallory
Facility Manager
Ferrellgas Partners, L.P.
1431 North Hwy 191
Moab, UT 84532

Subject: Review of the Proposed Plugging and Abandonment Plan for Buckeye Gas Storage Well #1, Ferrellgas, Moab, Utah UIC Permit UTU500007

Dear Brad:

DOGM Review

The Utah Division of Oil, Gas, and Mining (DOGM) reviewed the subject plan to ensure that it meets the minimum requirements for plugging and abandonment of wells in UAC R649-3-24. DOGM has the following additional requirements regarding the plan:

1. A plug shall be set at 1,510' (at the bottom of the 7" liner) to 1,409' (at the top of the salt).
2. A non-corrosive material shall be placed in the 7" liner above this plug and below the plug set above the perforations at approximately 800'.

These requirements are to ensure that no further degradation of the lower casing occurs due to exposure to the brine in the cavern and in the zones above the cavern.

In addition, before operations are commenced to plug and abandon the Buckeye Gas Storage Well #1, DOGM requires that a notice of intent to plug and abandon be submitted to DOGM on Form 9, Sundry Notices and Reports on Wells (attached). This notice should be sent to the attention of Clint Dworshak.

DWQ/UIC Review

The Utah Division of Water Quality (DWQ), Underground Injection Control (UIC) Program also reviewed the subject plan to ensure compliance with the requirements for plugging and abandonment of hydrocarbon storage wells and caverns as detailed in Section J of the Ferrellgas Class V UIC permit. The proposed plan omits the requirement for conducting a cement bond log on the production casing and a sonar survey on the storage cavern. Please submit, within 15 days of receipt of this correspondence, an explanation for omission of these two procedures from the proposed plugging and abandonment plan.

If you have any questions or comments, please feel free to contact me by phone at (801) 538-9260 or by email at ccady@utah.gov.

Sincerely,

Candace C. Cady

Candace C. Cady, P.G.
Environmental Scientist
UIC Program Coordinator, Ground Water Protection Section

Enclosures (1)

CC:/MR

cc: Dale Thompson, Ferrellgas w/enclosure
Kurt Shobe, GeoStat Environmental, LLC w/enclosure
Clint Dworshak, Utah DOGM w/o enclosure

F:\wp\UIC\FERRELLGAS\Buckeye #1 P&A Review.doc
File:Ferrellgas UIC Permit UTU500007

GeoStat Environmental, LLC

Office (620) 241-6090 Fax (620) 241-6490

April 1, 2005

Mr. Dale Thompson
Ferrell North America
2610 S. Mohawk Road
Hutchinson, KS 67501

RE: Proposed Plan for Plugging and Abandonment
Ferrellgas Moab Facility Buckeye #1 Underground Hydrocarbon Storage Well

Dear Mr. Thompson;

Based on conversations with Candace Cady (DWQ) and Clint Dworshak ((DOGM), enclosed please find the revised proposed plugging plan for the referenced P&A of the Ferrellgas Moab Facility Buckeye #1 Underground Hydrocarbon Storage Well

Please feel free to contact me at (620) 241-6090 if you have any questions or need any additional information regarding this proposal.

Sincerely;
***GeoStat* Environmental, LLC**

Kurt Shobe, MS, PG
Project Manager

RECEIVED
APR 0 1 2005
DIV. OF OIL, GAS & MINING

Ferrellgas Moab Facility
Proposed Scope of Work
Plugging and Abandonment Plan
Buckeye #1 Underground Storage Cavern

January 2005
Revised April 2005

P&A Procedure

Plugging and abandonment will be performed according to applicable elements of Section J. of the Ferrellgas Class V Underground Injection Control Permit, "Plugging and Abandonment of Buckeye Gas Storage Well #2".

The Ferrellgas Buckeye #1 cavern has been out of service since at least 1978. The last known use of the cavern was in conjunction with completion of the Buckeye #2 storage cavern, when the well was perforated between 695 and 864 feet bgl (the approximate depth of a localized brine aquifer) and utilized as a disposal well for brine created during the washing of cavern #2. Following completion of the Buckeye #2 well, all piping to the #1 well was disconnected and the well was shut in. Therefore, it is expected that the well will be brine full; no hydrocarbon product should be in the well.

Since the well has been perforated at approximately 695 feet, it will be necessary to set the plug in the 7" tubing slightly above this level and cement to surface.

Review of the Cement Bond Log for the cavern (previously provided to DWQ) indicates that the cement between the 8 5/8" casing and 7" liner is poor between surface and 694 feet bgl, and is poor to fair between 694 and 812 feet bgl.

A. Preparation

1. Surface Piping – All brine and product piping will be disconnected, capped and abandoned.
2. Product Removal – It is expected that no product is in the cavern. However, the cavern will be rolled and stripped of any remaining hydrocarbon product that may be encountered.
3. Tubing String – The tubing string has been removed for many years.
4. The cavern will be filled with saturated brine (if not already brine full).

B. Plug & Abandon

1. Key Energy Services, Inc. will rig up on the well and will be provided with the Ferrellgas safety orientation.
2. The wellhead will be removed to access the 8 5/8" casing. Utilizing a 1" tremie pipe, the interval between the 8 5/8" casing and the 7" liner will be cemented from approximately 695 feet to surface.
3. The cement will be allowed to cure for a minimum of 24 hours.

4. Following the 24 hour curing interval, a gas-tight cast iron bridge plug will be set above the level of the perforations in the 7" tubing, slightly above 695 feet.
5. The hydraulic pressure mechanical integrity test of the production casing and plug will be conducted following requirements as given in Section J.2.g. of the Ferrellgas Class V Underground Injection Control Permit.
6. Using a cementing working string, a 50-foot cement plug will be pumped on top of the bridge plug and allowed to cure for a minimum of 24 hours. During curing and remaining cementing operations, fluid level/condition will be monitored for signs of leakage.
7. All brine displaced during cementing will be drained to a local tank. Recovered brine will be removed by vacuum truck and returned to the Brine Pond.
8. Following cement plug curing, the working string will be used to tag the plug and verify stability of plug.
9. The casing will be filled with cement to the surface by slowly pumping cement and raising working string while displacing fluid. Cement volume will be monitored to verify no appreciable voids are developed.
10. Following cementing, a flange will be installed on the well braden head and 300 psig of pressure applied on top of the cement. Pressure will be applied to brine remaining on top of cement, using a portable brine pump.
11. Following curing of cement, the product casing will be cut down to the level of the cement and a steel cap welded over the casing. A product casing cap will be left above grade and will serve as monument for well location.
12. All brine and product lines will be flushed and purged.
13. A tri-coordinate map, including the elevation of the casing cap will be submitted to DWQ. A state licensed professional surveyor will prepare the map.

C. Reporting

As required by Section J.4. of the Ferrellgas Class V Underground Injection Control Permit, a plugging and abandonment report will be completed and submitted to DEQ within 60 days after completion of plugging activities.

Ferrellgas Moab Facility
Plugging and Abandonment Plan
Buckeye #1 Cavern

January 2005
Revised April 2005

Cementing Requirements

The cement to be used for plugging operations will be an API mixture of Class A cement with at least 60% cement and no more than 2% gel, which has the following properties:

Cementing Requirements	
Volume	1.51 ft^3/sack
Slurry Weight	14.2 lbs/gallon
Compressive Strength (48 hours)	1416 psi

Volume Calculations				
	size	**length**	**volume**	**cement sacks**
Casing	7	695	126 ft3	84
Casing	8 5/8	695	132 ft3	88
25% excess				43
Total cement required				215

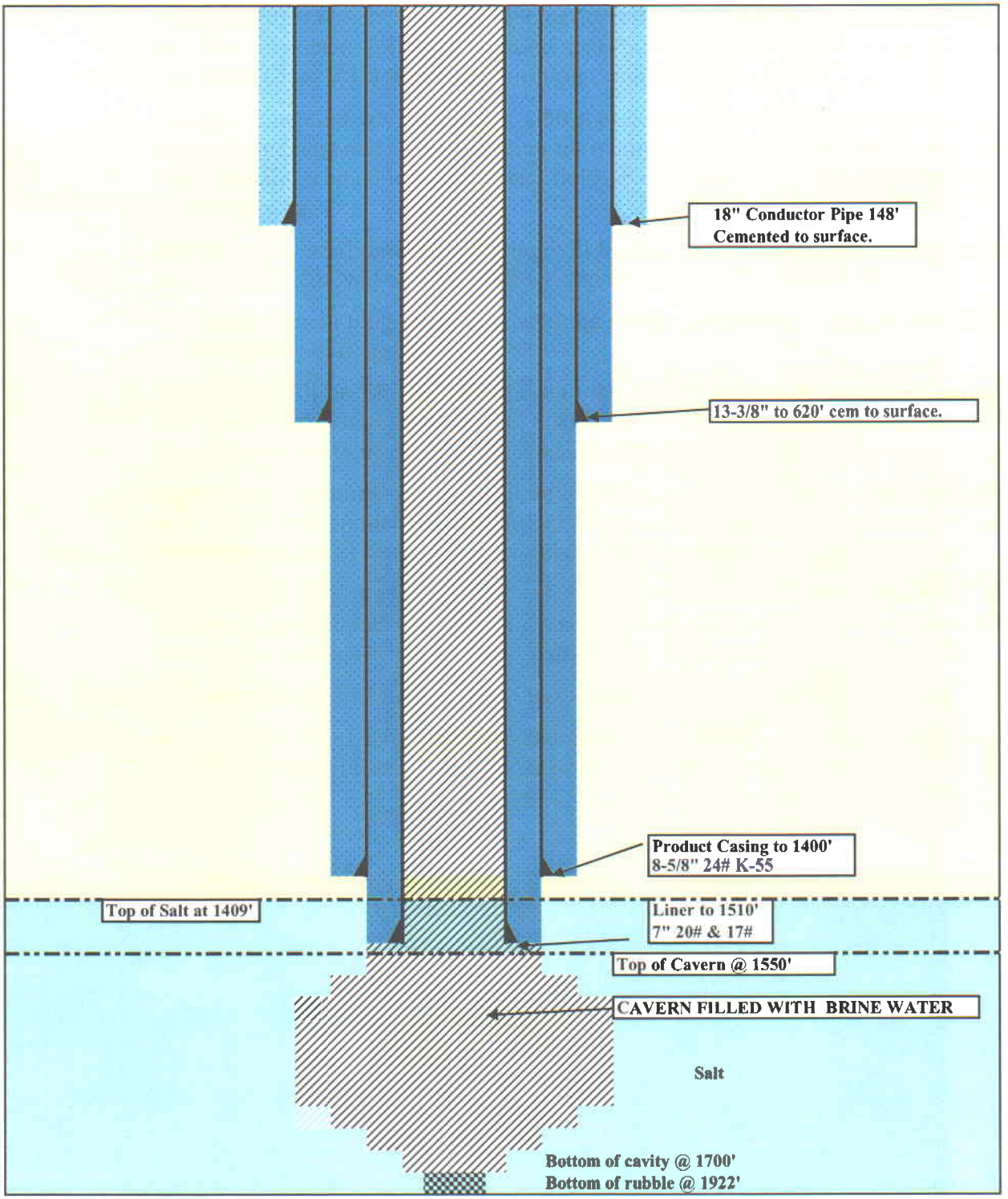


Figure 1 – Buckeye #1 Current Well Schematic

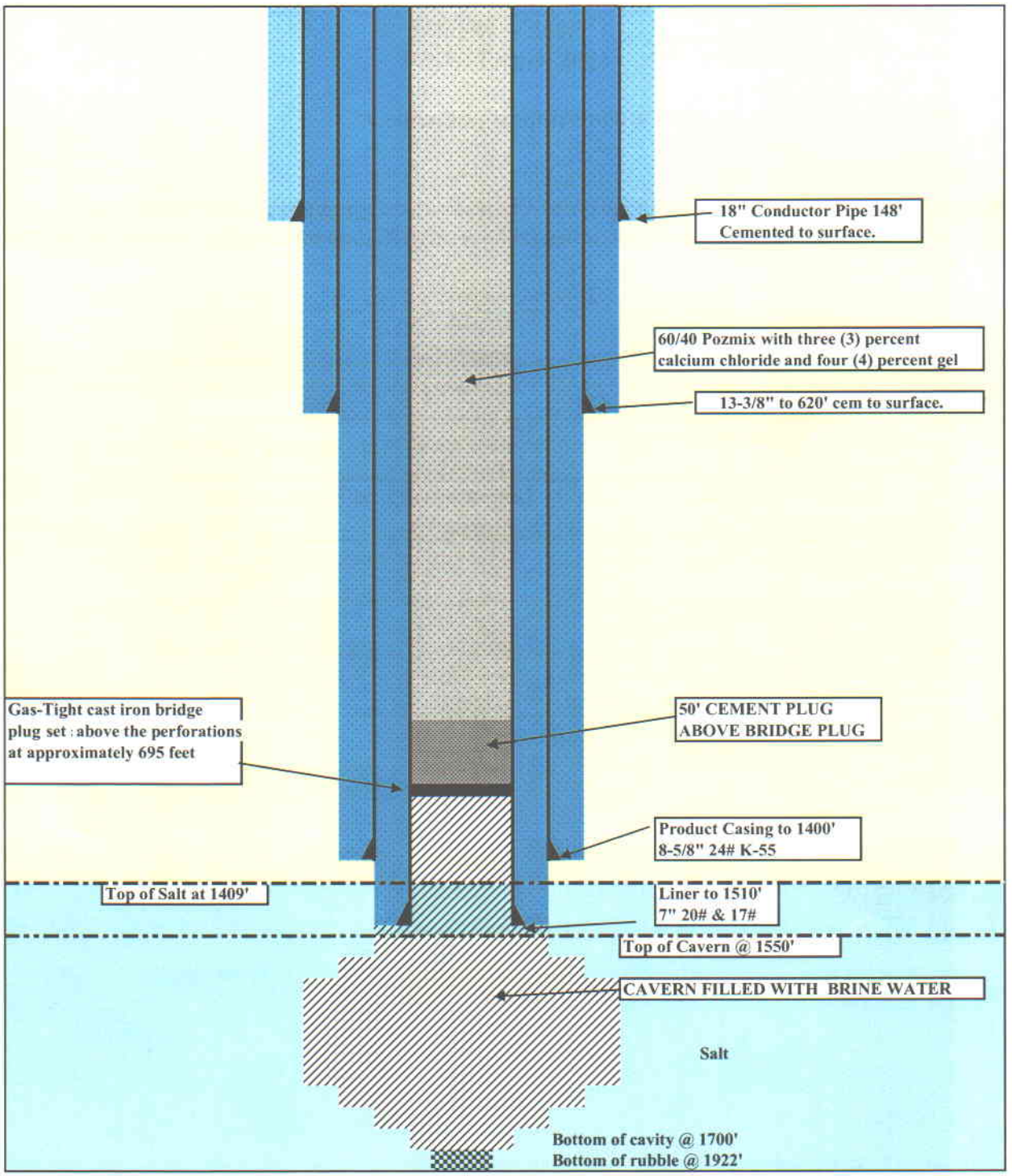


Figure 2 – Buckeye #1 Plugged Well Schematic

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

8. WELL NAME and NUMBER: Buckeye # 1

9. API NUMBER:

10. FIELD AND POOL, OR WILDCAT:

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Hydrocarbon Storage well

2. NAME OF OPERATOR: Ferrellgas

3. ADDRESS OF OPERATOR: 1431 N Hwy 191 CITY Moab STATE UT ZIP 84532 PHONE NUMBER: 435 259 6755

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 18" to 148 13 3/8 to 602 8 5/8 to 1411 feet BGL

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SE¼ SW¼ Sec 26 T25S R21E Salt Lake Base and Meridian

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☒ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE TUBING	☒ PLUG AND ABANDON	☐ VENT OR FLARE
Date of work completion:	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

See plugging & abandonment plan submitted to Dept. of Environmental Quality dated April 1, 2005

NAME (PLEASE PRINT) Brad Mallory TITLE Manager Moab Storage

SIGNATURE Brad Mallory DATE 05/09/05

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

RECEIVED
MAY 09 2005
DIV. OF OIL, GAS & MINING

Buckeye #1
Ferrellgas Moab Facility
Moab, Utah
Plugging (witnessed by Mark Jones, Utah DOGM)

May 11, 2005

- The annular space between the 7-inch liner and the 8 5/8 inch casing has been determined too small to run 1-inch tremie pipe as outlined in the approved plugging procedure. This is due to the thickness of the collars of the 7-inch liner, which was not taken into consideration while putting the plugging procedure together.

- I contacted Clinton Dworshak, DOGM, regarding this information. It was suggested that this information changes the situation enough that the rest of the procedures needed to be altered in order to plug the well properly. Clinton requested that the cast iron bridge plug (CIBP) be set below the perforations and a cement retainer be set above the perfs and cement pumped through the retainer and "squeezed" into the perfs and up the annular as far as possible. Cement could then be set on top of the retainer to surface as outlined in the original plugging procedure.

- A conference call was initiated by; Kirt Shobe (consultant for Ferrellgas), Brad Mallory (Ferrellgas), and myself, with Candace Cady, DWQ, to discuss these new details. It was agreed upon by all, that the procedure would be altered according to DOGM's suggestions.

- The amount of tubing on hand only allowed for the rig to run just below the top set of perfs. Clinton was again contacted and was ok with spotting the CIBP at this point.

- CIBP was set @ 705'.

- A plug was removed to the annulus from the wellhead to witness circulation in the annulus while the cementer's pressure tested and pumped cement. Upon removal of this plug, unexpected cement was found in the annulus. No circulation or signs of pressure was witnessed through the annulus at the wellhead while the cementers pressure tested with fresh water at a rate of 3 bbls/min for a total of ~40 bbls. Cementer did not see pressure of his equipment throughout this test either.

- The cement retainer was set @ 644'.

- 260 sacks of cement were pumped through the retainer onto the CIBP and into the perfs and annulus. The cementers saw pressure up to 200# on their equipment during the final minutes of pumping this stage. No circulation or pressure was ever seen through the hole in the wellhead to the annular between the 7" and 8 5/8".

- 5 sacks of cement were dropped on top of the retainer.

- No light plants were available therefore the job was suspended at this point due to darkness. Plans to continue with filling the 7 inch from ~644' to surface with cement the next morning were discussed.

May 12, 2005

- Candace Cady was on location to witness the remaining cementing/plugging procedures the morning of May 12.

RECEIVED
JUL 13

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

DIV OF OIL, GAS & MINING

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO:	6. SURFACE:
Fee	Fee

1A TYPE OF WORK: DRILL ☐ REENTER ☑ DEEPEN ☐

7. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

B TYPE OF WELL: OIL ☐ GAS ☐ OTHER Salt Cavern SINGLE ZONE ☑ MULTIPLE ZONE ☐

8. UNIT or CA AGREEMENT NAME: NA

2 NAME OF OPERATOR: Enterprise Products Operating LP

9. WELL NAME and NUMBER: Buckeye #1

3. ADDRESS OF OPERATOR: 1431 North Hwy 191 Moab UT 84532

PHONE NUMBER: (435) 259-6755

10. FIELD AND POOL, OR WILDCAT: Undesignated

4 LOCATION OF WELL (FOOTAGES)

AT SURFACE ~~Northing: 100789.17, Easting 2551105.7~~ 70'FNL 3260 FEL 38.593701 -109.571756

AT PROPOSED PRODUCING ZONE: 624384 X 4272451 Y

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 35 25S 21E

14 DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 2 miles NW of Moab U.S. Post Office on Hwy 191

12. COUNTY: Grand

13. STATE: UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)	16. NUMBER OF ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:
70' from N. Line, 3,260' from E. Line	NA	40
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)	**19. PROPOSED DEPTH:**	**20. BOND DESCRIPTION:**
500	1,700	Financial Guarantee Bond
21 ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):	**22. APPROXIMATE DATE WORK WILL START:**	**23. ESTIMATED DURATION:**
3957.5 DF above Sea Level	7/13/2007	10 Days

24 **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
NA	18"	H-40	87.5	148	Unknown	To Surface	Existing
NA	13-3/8"	H-40	48.0	620	Unknown	To Surface	Existing
NA	8-5/8"	K-55	24.0	1,400	Unknown	To Surface	Existing
NA	7"	K-55	17.0	1,510	Unknown	To Surface	Existing

25 **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
- ☑ COMPLETE DRILLING PLAN
- ☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Wally Swartz (281-589-5810) TITLE Project Manager, PB Energy Storage Services, Inc.

SIGNATURE Wally Swartz DATE 7/13/2007

(This space for State use only)

API NUMBER ASSIGNED: 43-019-31474

APPROVAL:

Approved by the Utah Division of Oil, Gas and Mining

Date: 07-16-07

By:

(11/2001) (See Instructions on Reverse Side)

COPY SENT TO OPERATOR
Date: 7-16-07
Initials: BM

Attachment to Form 3 – Application For Permit To Drill

General – This application is for drilling out a 600 foot cement plug and plugging hardware that exists in the Well Buckeye No. 1, presently owned by Enterprise Products Operating LP, in Moab, Utah. The purpose of this work is to perform a hydrostatic test on the cavern in the salt formation that was used in the past for LPG storage service. The results of the test will determine what work will be required for the final disposition of the well and salt cavern.

Please note the following comments in reference to Items on Form 3:

Item 20 – Enterprise Products Operating LP has provided a Financial Guarantee Bond and Standby Trust Agreement with the State of Utah Department of Environmental Quality. The contact for information on this bond is Ms. Candace C. Cady with the UIC of the DEQ. (801-538-9260)

Item 24 – Proposed Casing and Cementing Program – The program shown is the existing casing program in the completed well. The attachments provided with this Form 3 provide additional descriptions of the cement plug and drilling and testing plan with schematic drawings.

Other:

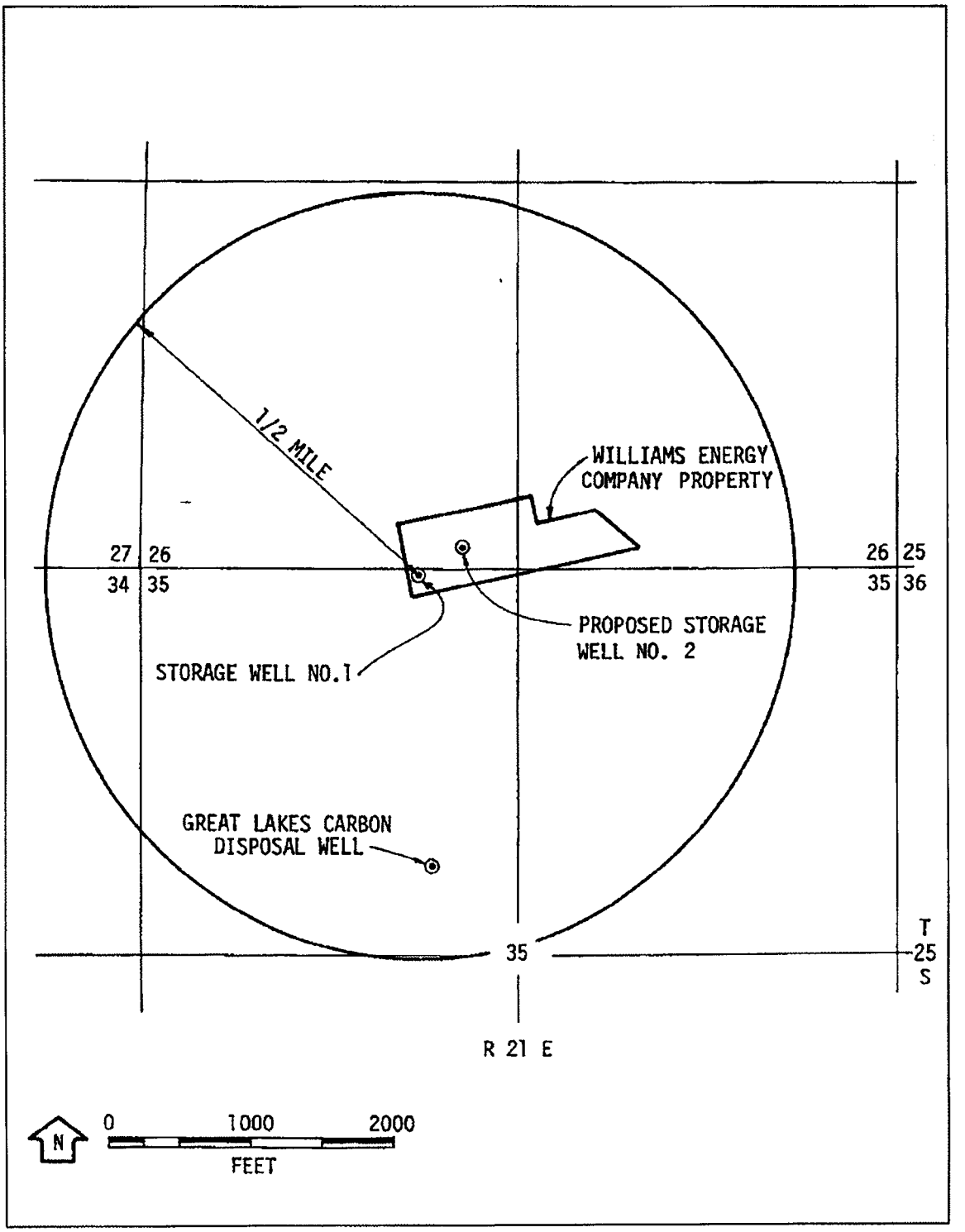
Drilling Fluids, Mud System – The drilling fluid to be is used is salt water from an existing brine pond on the facility property. The brine has been used in past LPG storage operations as displacement fluid for LPG when product is brought out of the well.

Water Rights – No significant fresh water will be used in the drilling operations as described above.

Designated Agent for Enterprise Products Operating LP –

Wally Swartz
Project Manager
PB Energy Storage Service, Inc.
11757 Katy Freeway
Suite 600
Houston, Texas 77079

Office 281-589-5810
Cell 281-723-3788



Location of Buckeye No. 1, Moab, Utah
To be re-entered for test program.

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: Undesignated

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: NA

1 TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Salt Cavern Storage Well

8. WELL NAME and NUMBER: Buckeye No. 1

2. NAME OF OPERATOR: Enterprise Products Operating LP

9. API NUMBER: 4301931474

3. ADDRESS OF OPERATOR: 1431 North Hwy 191, Moab, UT 84532

PHONE NUMBER: (435) 259-6755

10. FIELD AND POOL, OR WILDCAT: Undesignated

4 LOCATION OF WELL

FOOTAGES AT SURFACE: Northing 100789.17, Easting 2551105.70, Elevation 4033.40

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 35 25S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit In Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: 7/13/2007	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: Cavern Pressure Test
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

See attached program for testing of Well Buckeye No. 1 in Moab. Work to begin on or about July 9, 2007. If testing is successful, a repair plan will be submitted. If testing fails, well will be plugged and abandoned again.

NAME (PLEASE PRINT) Wally Swartz TITLE Project Manager, PB Energy Storage Services, Inc.

SIGNATURE Wally Swartz DATE 7/13/2007

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

1.0 INTRODUCTION

Enterprise Products is considering reactivation of Cavern Well No. 1 at their propane storage facility in Moab, Utah. Well No. 1 had been removed from propane storage service in 1979, and in 2005 the well was plugged and abandoned. A schematic diagram of the current configuration of the well is attached.

The objective of the following Mechanical Integrity Test (MIT) program is a preliminary step to determine if the underground storage cavern has mechanical integrity suitable for storage of hydrocarbons. It is understood that the well casing is not presently suitable for storage operations and would need extensive repairs and/or installation of a casing liner. This first step is to determine if the salt cavern is acceptable for storage operations. Should the cavern show mechanical integrity by this test, additional steps will be necessary to repair the well, and then perform a mechanical integrity test of the repaired well and cavern system. That second phase is beyond the scope of this preliminary test program.

This test procedure consists of the following basic steps: Drilling out cement and bridge plugs; setting a bore hole inflatable packer to isolate the cavern from the cased well bore; pressuring the cavern with brine to a given test pressure; recording the cavern brine pressures (at the surface) and the annulus pressure through a given test period.

2.0 PROCEDURE

2.1 Dig out around the well casing to provide access for welding activity.

2.2 Hot tap the weld cap on Well No. 1 and install a bleeder valve to remove any potential pressure in the cavern well. Bleed off any pressure encountered before proceeding.

2.3 Make sure there is no pressure and cut off weld cap and bevel 8-5/8" casing for butt weld.

2.4 Weld on 8-5/8" casing extension with API 2000, or ANSI 600, RTJ weld neck flange to provide for well control.

2.5 Move in workover rig with pump and tank. Nipple up well control equipment and function test.

2.6 Rig up power swivel and pump system.

2.7 Pick up 6-1/4" bit, drill collars and work string.

2.8 Rig up mud system and mix drilling mud. (Gel / brine mud)

2.9 Drill out cement plug down to cement retainer at ~644'. Drill out cement retainer. If required, change bit to mill to drill through retainer.

2.10 Drill cement from below the retainer to bridge plug at ~707' then drill through the bridge plug. If required, change bit to mill to drill through bridge plug.

2.11 **NOTE: When drilling through cement retainer or bridge plug watch for pressure and/or pipe movement from downhole pressure.**

2.12 Run bit below cavern roof at ~1550' to make sure hole is clear to cavern.

2.13 Rig down drilling tools and pipe.

2.14 Run 7" scraper to clean out cement residue. If necessary run mill through 7" casing to clean out cement.

2.15 Rig up wireline unit and run X-Y caliper log in bore hole from cavern roof at 1550' to 50' above casing shoe to determine if the bore hole is acceptable for the inflatable packer.

2.16 Run CCL from casing shoe to surface to determine collar locations and end of 7" casing.

2.17 Run in with inflatable packer and set packer in bottom joint of 7" casing for casing shoe/cavern test at approximately 1510'.

2.18 Close Hydril on tubing and install pressure-monitoring equipment on well connections to allow continuous monitoring of tubing (cavern) and annulus wellhead pressures. Install pressure recorder to monitor Cavern No. 2 tubing and annulus pressures before and during the testing of Cavern No. 1.

2.19 Inject saturated brine into Well No. 1 tubing and pressure up cavern below the packer to 0.75 psi/ft gradient. (~348 psig at surface). Make sure well bore above the packer is full of brine.

2.20 Monitor pressures for 48 to 72 hours. Plot pressure vs. time to determine rate of pressure decline. Also check the surface pressures on Cavern No. 2 to ensure that there is no communication of fluid between the caverns.

2.21 If pressures indicate cavern mechanical integrity, end test. If necessary, re-pressure and retest as required.

2.22 If casing shoe/cavern test is unsuccessful and bore hole is acceptable, run in with inflatable packer and set packer in bore hole at selected depth (~1520').

2.23 Close Hydril on tubing and install pressure-monitoring equipment on well connections to allow continuous monitoring of tubing (cavern) and annulus wellhead pressures.

2.24 Inject saturated brine into tubing and pressure up cavern below the packer to 0.75 psi/ft gradient. (~353 psig at surface). Make sure well bore above the packer is full of brine.

2.25 Monitor pressures for 48 to 72 hours. Plot pressure vs. time to determine rate of pressure decline.

2.26 If pressures indicate cavern mechanical integrity, end test. If necessary, re-pressure and retest as required.

3.0 PROGRAM OPTIONS

If logging results or attempts to set the packer indicate the bore hole cannot be sealed with the packer, PB ESS will consult with Enterprise to consider optional steps before proceeding. These may include:

3.1 Mill out some of the 7" casing to open bore hole above the 7" casing shoe and attempt to set the packer.

3.2 Set the packer in the exiting borehole and then try to set a cement plug above the packer to seal the cavern.

3.3 Other options may be considered depending upon the conditions found in the field.

4.0 TEST RESULTS

4.1 If results indicate the test period must be extended, repeat steps 2.20 to 2.22 as required.

4.2 After the test, bleed off the brine pressure. Do not allow the cavern pressure change to exceed 2.5 psi per minute.

5.0 REPORT ON TEST RESULTS

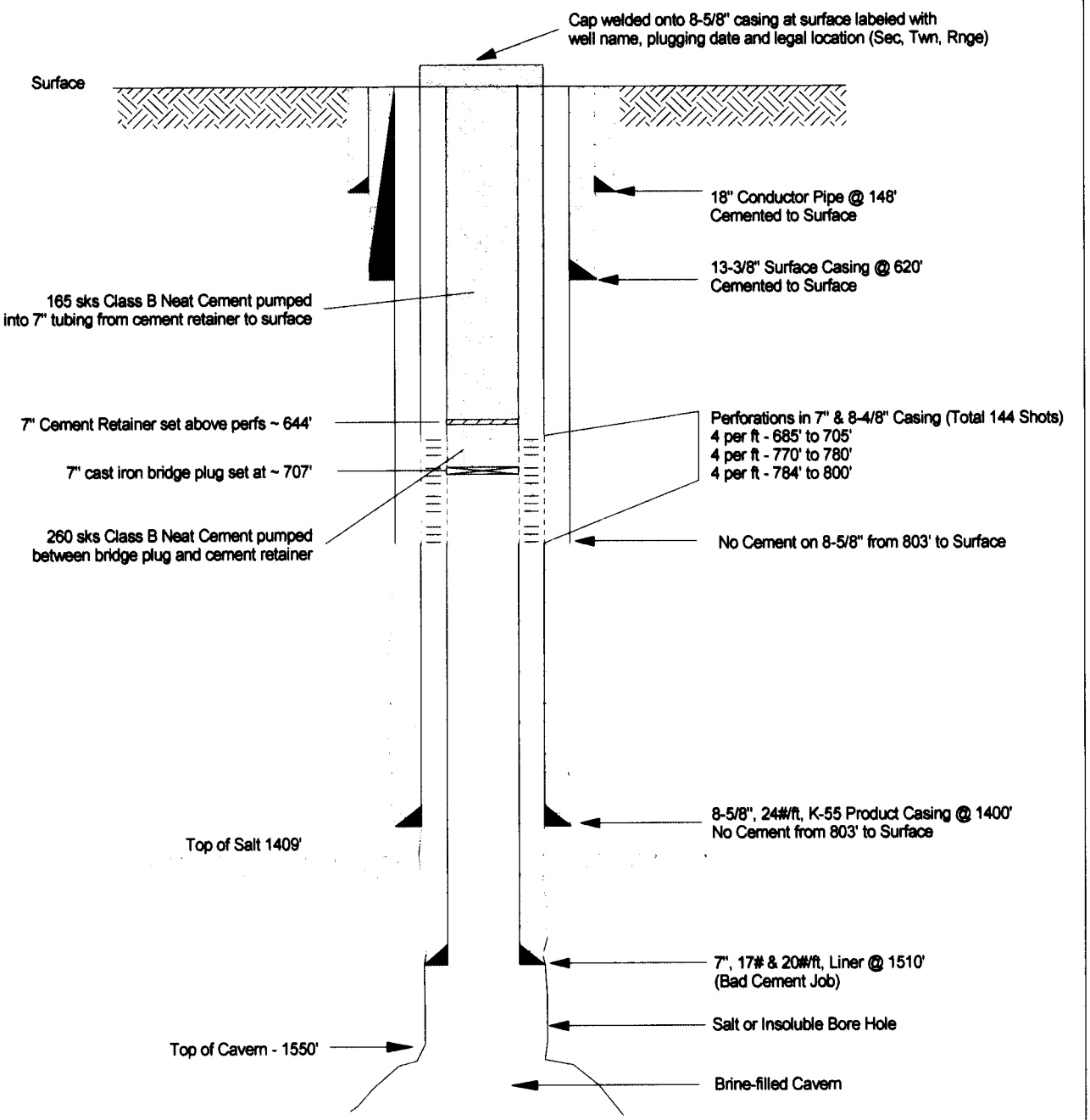
5.1 Prepare a written report presenting test procedures, results and conclusions, along with a chronology of test activity, wireline logs, wellhead pressure records, and supporting calculations.

5.2 After the investigation, determine course of action, and tasks required to repair the cased well.

5.3 If it is determined that the cavern test has failed, the well will be plugged and abandoned, according to the plugging and abandonment plan submitted to and approved by the Utah DEQ.

5.4 Develop cost estimate for the well repair plan.

Existing Storage Well No. 1



Reference:
Environmental, LLC "Plugging and Abandonment Report", (8-8-2005)
PB-KBB DWG. 847-LW-001
Fenix & Scisson Sketch - Storage Well No. 1 on Conversion to Brine Disposal

Revision 3 6/30/06

PB Energy Storage Services, Inc. Engineering - Construction - Operations - Maintenance 11757 Katy Freeway #600 Houston, Texas 77079	ENTERPRISE PRODUCTS MOAB, UTAH

MOAB WELL NO. 1 EXISTING CONFIGURATION						JOB. NO. 50653I
DESIGN: WJS	DRAWN: WJS	CHECKED:	DATE: 06/06	SCALE: NONE		DRAWING NO. 50652I-P-1

1.0 INTRODUCTION

Enterprise Cavern Well No. 1 in Moab, Utah is to undergo some cavern integrity testing as outlined in the proposed Cavern No. 1 Test Program. To test the program, the existing cement plug and plugging hardware will have to be drilled out completely. If the test program is successful, the plugs will not be replaced, instead a repair program will be developed to reconfigure the well for hydrocarbon storage. After reconfiguration, the well/cavern system will undergo a mechanical integrity test via a method proposed to, and approved by the State of Utah.

Should the test program determine that the cavern is not capable of hydrocarbon storage service, the well will be plugged and abandoned. The intent of the plugging program is to plug and abandon the well in accordance with the requirements of the State of Utah Department of Environmental Quality.

2.0 PREPARATION

2.1 Test Hardware – All tubing, temporary packer installations and any other hardware will be removed from the well bore.

2.2 The cavern will be filled with saturated brine.

3.0 PROCEDURE

3.1 A cast iron bridge plug will be set above the bottom of the 7" casing at approximately 1480'.

3.2 Prior to cementing, the well will be checked to ensure that all fluids are static. Neat API Class B or ANSI Type II cement will be spotted in the 7" casing, above the bridge plug, from approximately 1480' to 800'. (Approximately 135 sacks.) This cement plug will straddle the Top of Salt and the end of the 8-5/8" casing, up to the perforations in the casing. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond.

3.3 The cement will be allowed to cure overnight.

3.4 The location of the plug will be verified by tagging it with the work string.

3.5 After verifying the first plug, approximately 160 sacks of Class B/Type II cement will be pump into the 7", just above the perforated zone, at a depth of approximately 680'. The cement will be allowed to flow to an equilibrium level equivalent to the formation pressure outside the perforations. The cement will be allowed to cure overnight.

3.6 The top of the plug will be tagged with the work string to verify the location of the top of the cement.

3.7 If all the perforations are covered, the final cement plug will be prepared. If it is determined that additional cement is needed to cover the perforations, additional cement will be pumped into the 7" above the top of the last plug and the previous two steps will be repeated.

3.8 Once the perforations are covered, the amount of cement necessary to fill the remainder of the 7" to the surface will be calculated. The final quantity of Class B / Type II cement will be pumped into the 7" with

the cementing string until it gets within 10 feet of the surface. The cement will cure for 24 hours and the level will be monitored at the end of the operation to verify the final level. If necessary, cement will be added to the top of the well to bring the final level to the surface. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond. After curing, the location of the cement plug will be verified to ensure that the cement level did not fall.

3.9 Following the curing of cement, the product casing will be cut down to the surface and a steel pipe cap will be welded over the end of the casing. The cap will be left above grade and will serve as a marker for the well location.

3.10 A licensed professional surveyor will prepare a map showing the coordinates and elevation of the cap on the well location. A copy of the map will be provided to the Utah DEQ, Division of Water Quality.

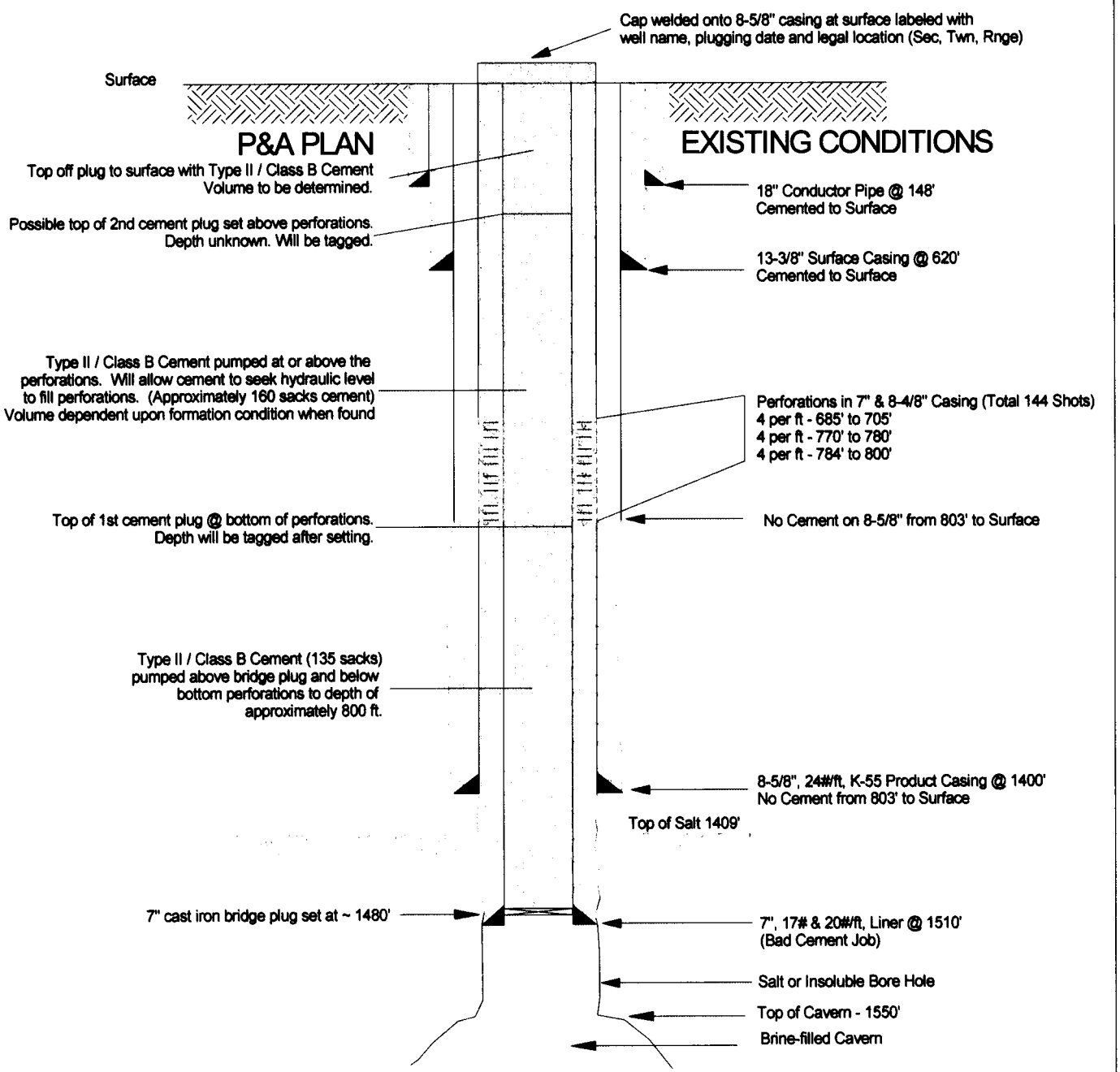
4.0 REPORTING

4.1 As required by the Underground Injection Control Permit, a plugging and abandonment report will be completed and submitted to the DEQ within 60 days after completion of plugging activities.

5.0 DRAWINGS

5.1 50653O-P1-B – Proposed Well No. 1 Plugging Plan

Storage Well No. 1
Plug and Abandon Plan



REVISED 7/6/07

PB Energy Storage Services, Inc. Engineering - Construction - Operations - Maintenance 11757 Katy Freeway #600 Houston, Texas 77079	ENTERPRISE PRODUCTS MOAB, UTAH

MOAB WELL NO. 1 PLUG AND ABANDON PLAN					JOB. NO. 50653O
DESIGN: WJS	DRAWN: WJS	CHECKED:	DATE: 07/06/07	SCALE: NONE	DRAWING NO. 50653O-P-1B

State of Utah

Department of Environmental Quality

Richard W. Sprott
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

12 July 2007

Mr. Mark Thompson
UGS Technology Director
Enterprise Products Operating, L.P.
P.O. Box 337
47433 Texaco Road
Sorrento, Louisiana 70778-0337

Dear Mark:

Subject: Approval of Plugging and Abandonment Plans for Buckeye #1 and #2 Cavern / Injection Wells Systems; Enterprise Products Operating, L.P.; Grand County; UIC Permit Number – UTU-19IP-112F771 (Old Permit Number - UTU500007)

The Utah Division of Water Quality (DWQ) has reviewed the revised plugging and abandonment plans (attached) for the subject injection wells that were submitted via email on 9 July 2007. The revised plans adequately address the comments and concerns articulated by DWQ in its letter dated 27 March 2007 with respect to the plans submitted in February 2007. The attached plans are therefore approved for implementation should the need arise and will replace the plans in the permit.

If you have any questions or comments, please feel free to contact me by phone at (801) 538-9260 or by email at ccady@utah.gov.

Sincerely,

Candace C. Cady

Candace C. Cady, P.G.
Environmental Scientist
UIC Program Coordinator, Ground Water Protection Section

Attachments

cc: Mr. Brad Hill, Division of Oil, Gas, and Mining

CC:

F:\wp\UIC\CLASS V\ENTERPRISE PRODUCTS\ApprovedP&APlans.doc
File: UIC Files; Grand County; UIC Permit UTU500007

1.0 INTRODUCTION

Enterprise Cavern Well No. 1 in Moab, Utah is to undergo some cavern integrity testing as outlined in the proposed Cavern No. 1 Test Program. To test the program, the existing cement plug and plugging hardware will have to be drilled out completely. If the test program is successful, the plugs will not be replaced, instead a repair program will be developed to reconfigure the well for hydrocarbon storage. After reconfiguration, the well/cavern system will undergo a mechanical integrity test via a method proposed to, and approved by the State of Utah.

Should the test program determine that the cavern is not capable of hydrocarbon storage service, the well will be plugged and abandoned. The intent of the plugging program is to plug and abandon the well in accordance with the requirements of the State of Utah Department of Environmental Quality.

2.0 PREPARATION

2.1 Test Hardware – All tubing, temporary packer installations and any other hardware will be removed from the well bore.

2.2 The cavern will be filled with saturated brine.

3.0 PROCEDURE

3.1 A cast iron bridge plug will be set above the bottom of the 7" casing at approximately 1480'.

3.2 Prior to cementing, the well will be checked to ensure that all fluids are static. Neat API Class B or ANSI Type II cement will be spotted in the 7" casing, above the bridge plug, from approximately 1480' to 800'. (Approximately 135 sacks.) This cement plug will straddle the Top of Salt and the end of the 8-5/8" casing, up to the perforations in the casing. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond.

3.3 The cement will be allowed to cure overnight.

3.4 The location of the plug will be verified by tagging it with the work string.

3.5 After verifying the first plug, approximately 160 sacks of Class B/Type II cement will be pump into the 7", just above the perforated zone, at a depth of approximately 680'. The cement will be allowed to flow to an equilibrium level equivalent to the formation pressure outside the perforations. The cement will be allowed to cure overnight.

3.6 The top of the plug will be tagged with the work string to verify the location of the top of the cement.

3.7 If all the perforations are covered, the final cement plug will be prepared. If it is determined that additional cement is needed to cover the perforations, additional cement will be pumped into the 7" above the top of the last plug and the previous two steps will be repeated.

3.8 Once the perforations are covered, the amount of cement necessary to fill the remainder of the 7" to the surface will be calculated. The final quantity of Class B / Type II cement will be pumped into the 7" with

the cementing string until it gets within 10 feet of the surface. The cement will cure for 24 hours and the level will be monitored at the end of the operation to verify the final level. If necessary, cement will be added to the top of the well to bring the final level to the surface. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond. After curing, the location of the cement plug will be verified to ensure that the cement level did not fall.

3.9 Following the curing of cement, the product casing will be cut down to the surface and a steel pipe cap will be welded over the end of the casing. The cap will be left above grade and will serve as a marker for the well location.

3.10 A licensed professional surveyor will prepare a map showing the coordinates and elevation of the cap on the well location. A copy of the map will be provided to the Utah DEQ, Division of Water Quality.

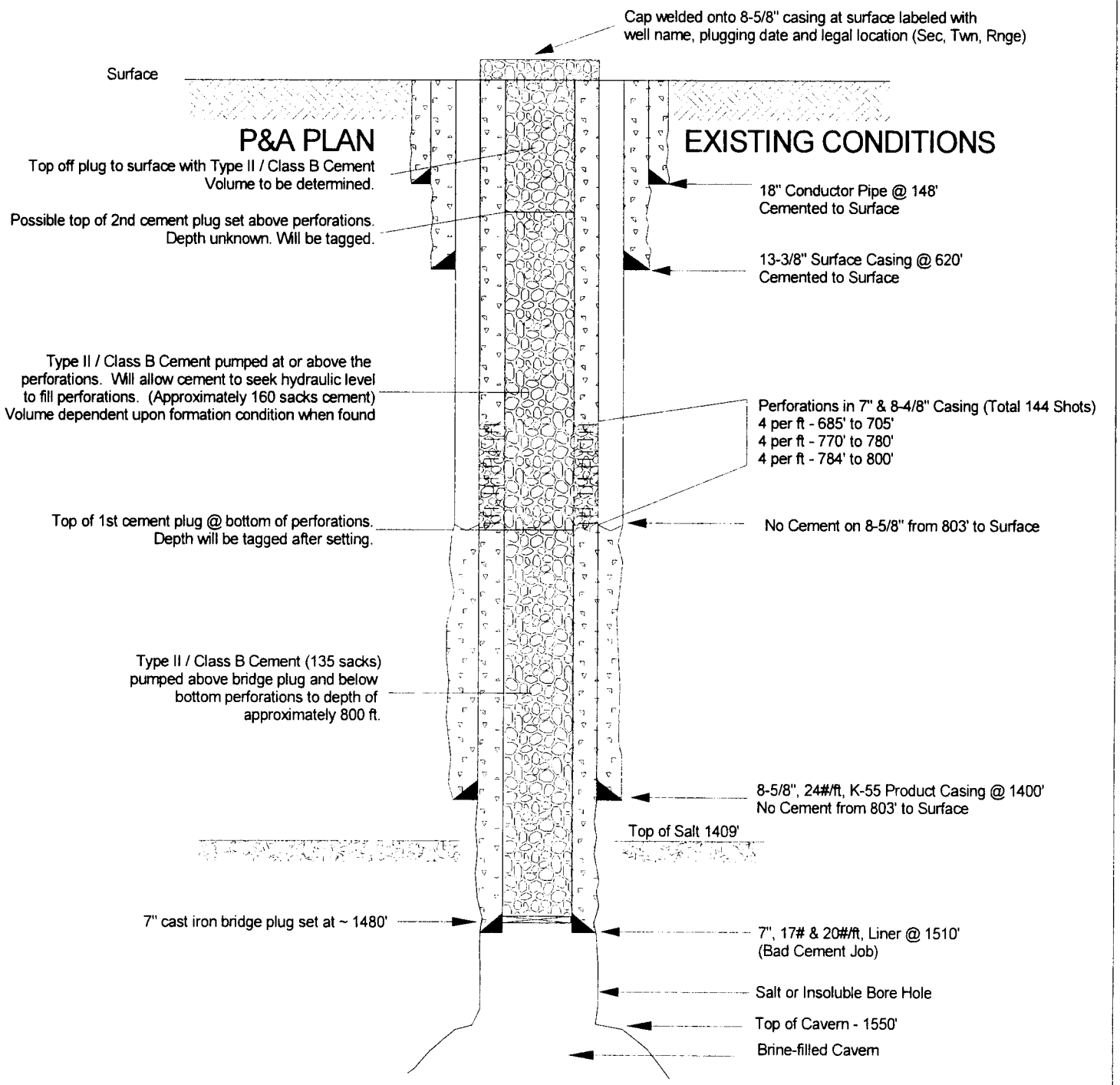
4.0 REPORTING

4.1 As required by the Underground Injection Control Permit, a plugging and abandonment report will be completed and submitted to the DEQ within 60 days after completion of plugging activities.

5.0 DRAWINGS

5.1 50653O-P1-B – Proposed Well No. 1 Plugging Plan

Storage Well No. 1
Plug and Abandon Plan



REVISED 7/6/07

PB Energy Storage Services, Inc. Engineering - Construction - Operations - Maintenance 11757 Katy Freeway #600 Houston, Texas 77079	ENTERPRISE PRODUCTS MOAB, UTAH

MOAB WELL NO. 1 PLUG AND ABANDON PLAN					JOB. NO. 50653O
DESIGN: WJS	DRAWN: WJS	CHECKED:	DATE: 07/06/07	SCALE: NONE	DRAWING NO 50653O-P-1B

1.0 INTRODUCTION

Enterprise Products is planning to plug and abandon Cavern Well No. 2 at their propane storage facility in Moab, Utah. Well No. 2 was removed from propane storage service in April 2006. The well was worked over and a mechanical integrity test was attempted on the cavern/well system. The test was unsuccessful and the decision was made to proceed with abandonment. Plugging and abandonment will be performed according to Part III Section J. of the Ferrellgas Class V Underground Injection Control Permit, "Plugging and Abandonment of Buckeye Gas Injection Well #2 and Storage Cavern".

2.0 PREPARATION

2.1 Surface Piping – All brine and product piping will be purged, disconnected, and removed or capped and abandoned.

2.2 Product Removal – The cavern has already been emptied of all hydrocarbon product; the well bore was purged with nitrogen gas.

2.3 Tubing string – The 7" tubing string will be removed and recovered.

2.4 The cavern will be filled with saturated brine.

2.5 The casing, borehole, and cavern were extensively logged during the workover and the MIT performed in April and May of 2006. These logs included a cavern sonar, casing inspection log, and gamma-gamma density logs during the MIT. A Cement Bond log will be run on the 9-5/8" production casing to determine the cement bond quality behind the casing. Additional logging will only be performed as necessary to set plugs and cement.

2.6 If it is determined that there is free pipe in the well, this casing will be cut and pulled after setting a bridge plug near the bottom of the casing, but before cementing operations take place.

2.7 The MIT performed on the well bore and cavern indicated that the 9-5/8" cemented casing and the cavern borehole demonstrated good mechanical integrity as there was no indication of leaks of nitrogen gas that had been injected in this area. The well was monitored for 25 days after injection.

3.0 PROCEDURE

3.1 A cast iron bridge plug will be set in the bottom joint of 9-5/8" production casing above the casing shoe. Ensure the 9-5/8" is full of brine and pressure with brine to 250 psi for 30 minutes to verify that bridge plug has sealed.

3.2 All brine displaced during cementing and any recovered brine will be contained and transferred to the brine pond. Prior to cementing, the well will be checked to ensure that all fluid levels are static.

3.3 Using neat API Class B or ANSI Type II cement, an initial plug will be set above the bridge plug from approximately 1130' to 600'. A cementing string, will be used to pump the cement into the 9-5/8" casing above the bridge plug. The casing will be filled with cement to the surface by slowly pumping cement and raising the working string while displacing brine. The cement volume will be monitored to verify the absence of appreciable voids.

3.4 Cementing will be accomplished in two approximate 600 foot stages, allowing the cementing string to be moved above the cement after each stage. The cement level will be monitored at the end of the operation to verify the final level. If necessary, cement will be added to the top of the well to brine the final level to within 10 feet of the surface. After cementing, the cement will be allowed to cure for 24 hours.

3.5 After curing, the location of the cement plug will be verified to ensure that the cement level did not fall. Pressure with water or brine to 300 psi for 30 minutes to verify that plug has sealed.

3.6 Following the curing of cement, the product casing will be cut down to the surface and a steel pipe cap will be welded over the end of the casing. The cap will be left above grade and will serve as a marker for the well location.

3.8 A licensed professional surveyor will prepare a map showing the coordinates and elevation of the cap on the well location. A copy of the map will be provided to the Utah DEQ, Division of Water Quality.

4.0 REPORTING

4.1 As required by the Underground Injection Control Permit, a plugging and abandonment report will be completed and submitted to the DEQ within 60 days after completion of plugging activities.

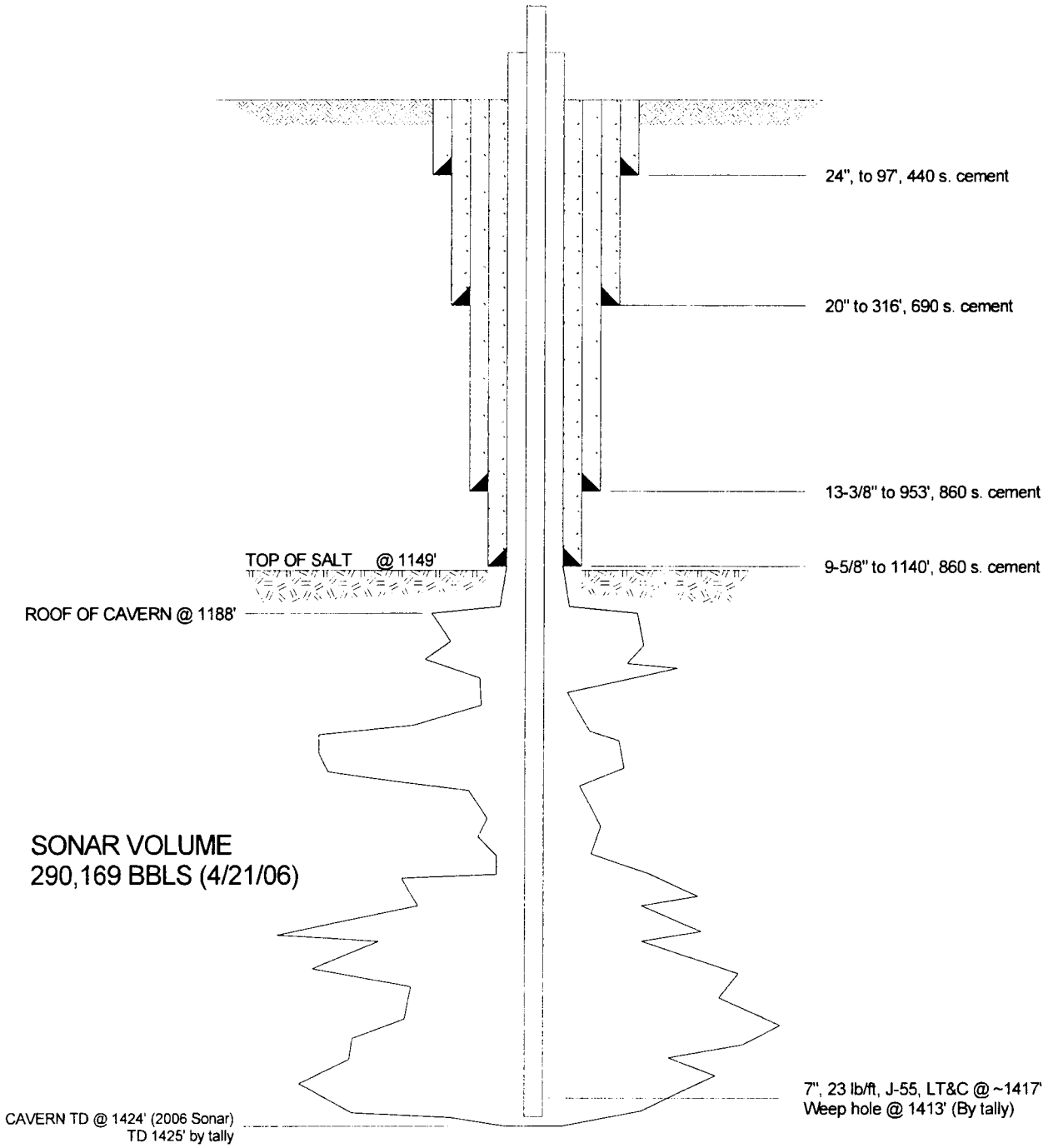
5.0 DRAWINGS

5.1 50653I-001 – Existing Well No. 2 Well Schematic

5.2 50653I-004 – Existing Well No. 2 Wellhead Schematic

5.3 50653I-002 – Proposed Well No. 2 Plugging Plan

5.4 50653-005 – Proposed Plugged Well Site



DWG. NOTES:
1. ALL DEPTHS MEASURED FROM BHF.
2. REFERENCE DATA FROM ENTERPRISE RECORDS AND PB ESS 2006 WORKOVER REPORT.

PB ENERGY STORAGE SERVICES, INC.
Engineering Construction Operations
11757 KATY FREEWAY #600
HOUSTON, TEXAS 77079

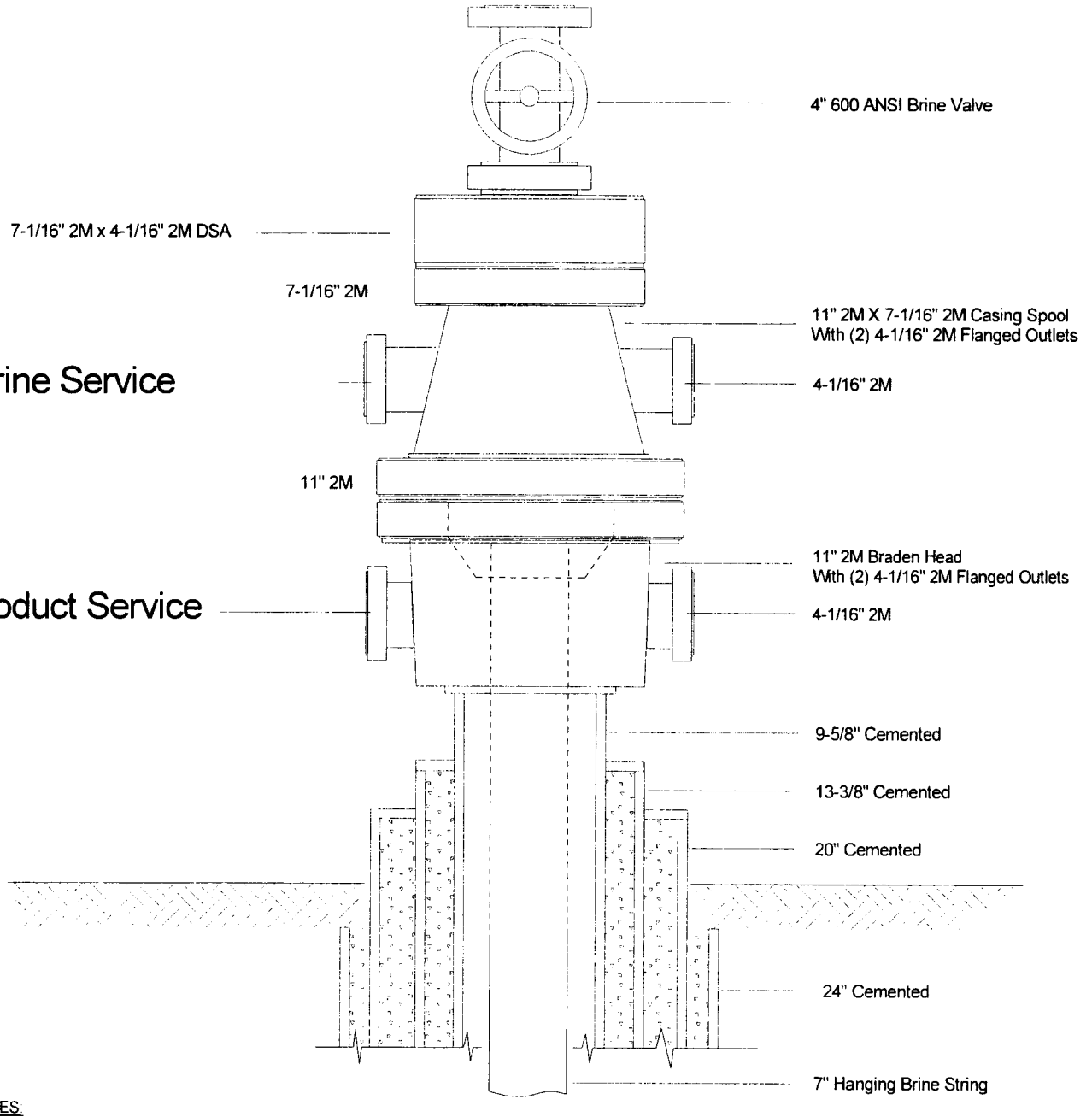
ENTERPRISE PRODUCTS OPERATING LP
MOAB, UTAH

STORAGE WELL NO. 2
WELL SCHEMATIC

JOB No. 50653I

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING No.
WJS			04/06	NONE	50653I-WO-001

STORAGE WELL NO. 2



DWG. NOTES:
1. REFERENCE ENTERPRISE WELL RECORDS AND PB ESS WORKOVER REPORT.

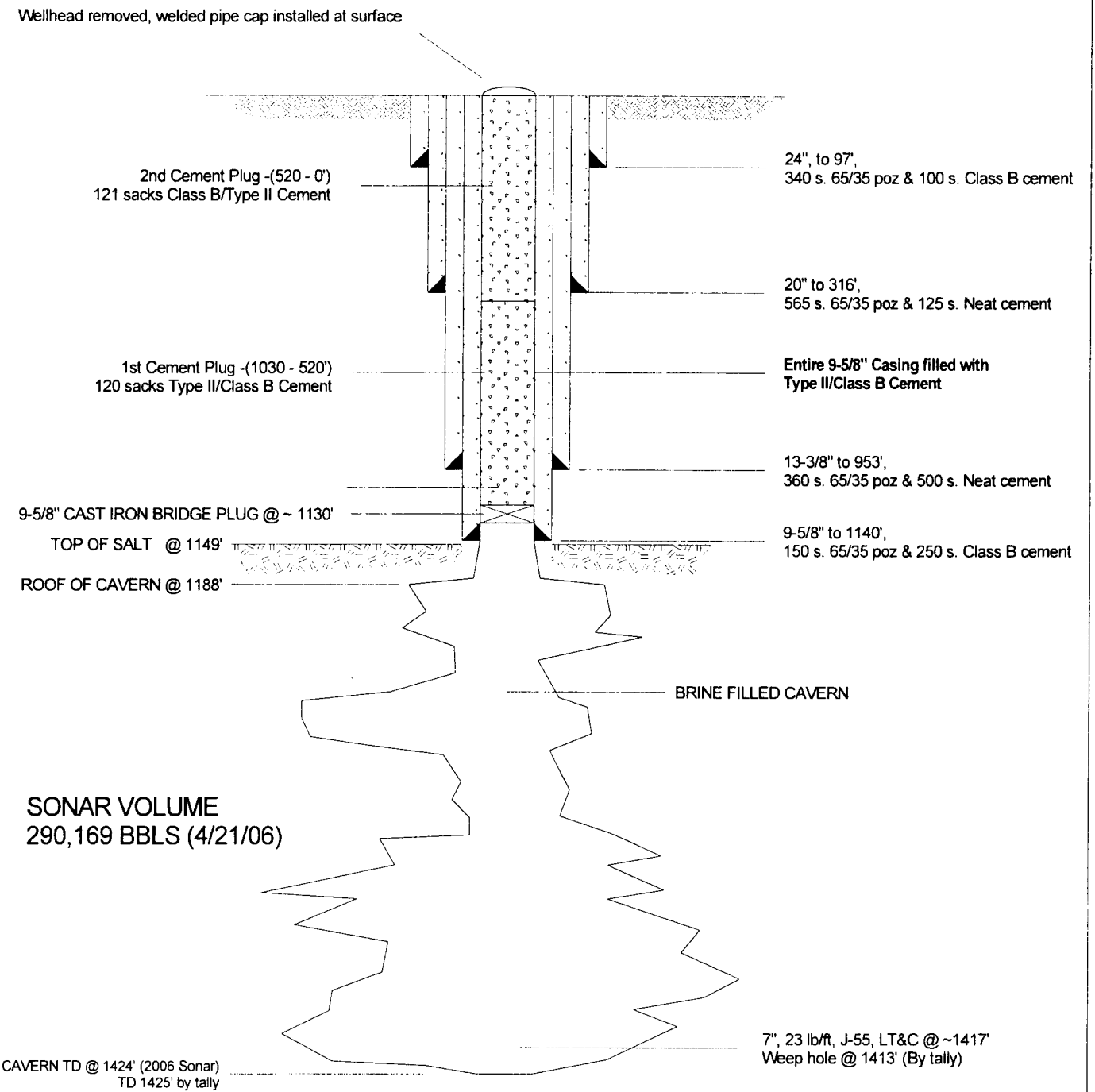
PB ENERGY STORAGE SERVICES, INC.
Engineering Construction Operations
11757 KATY FREEWAY #600
HOUSTON, TEXAS 77079

ENTERPRISE PRODUCTS
MOAB, UTAH

MOAB STORAGE WELL NO. 2
EXISTING WELLHEAD SCHEMATIC

JOB No. 50653I

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING No.
WJS			10/06	NONE	50653I-WO-004-A



DWG. NOTES:
1. ALL DEPTHS MEASURED FROM BHF.
2. REFERENCE DATA FROM ENTERPRISE RECORDS AND PB ESS 2006 WORKOVER REPORT.

Revised : 7/06/07

PB ENERGY STORAGE SERVICES, INC.
Engineering Construction Operations
11757 KATY FREEWAY #600
HOUSTON, TEXAS 77079

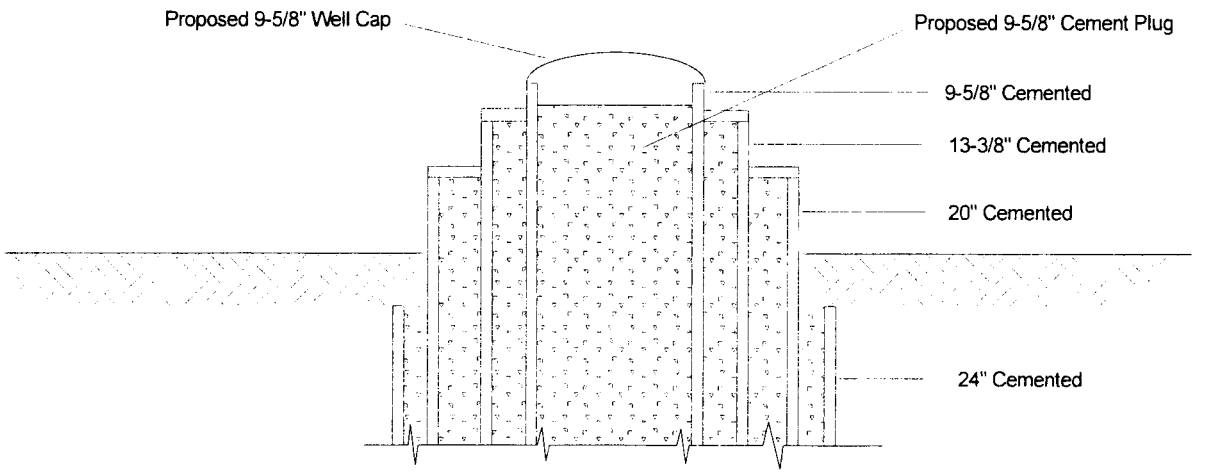
ENTERPRISE PRODUCTS OPERATING LP
MOAB, UTAH

STORAGE WELL NO. 2
PLUGGING PLAN

JOB No. 50653I

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING No.
WJS			07/06/07	NONE	50653I-WO-002 R2

STORAGE WELL NO. 2
Proposed Plugged & Abandoned Well Site



DWG. NOTES:
1. REFERENCE ENTERPRISE WELL RECORDS AND PB ESS WORKOVER REPORT.

PB ENERGY STORAGE SERVICES, INC.
Engineering Construction Operations
11757 KATY FREEWAY #600
HOUSTON, TEXAS 77079

ENTERPRISE PRODUCTS
MOAB, UTAH

MOAB STORAGE WELL NO. 2
EXISTING WELLHEAD SCHEMATIC

JOB No. 50653I

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:
WJS			10/06	NONE

DRAWING No. 50653I-WO-005-A

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: Fee

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: NA

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Salt Cavern Storage Well

8. WELL NAME and NUMBER: Buckeye No. 1

2. NAME OF OPERATOR: Enterprise Products Operating LP

9. API NUMBER: 4301931474

3. ADDRESS OF OPERATOR: 1431 North Hwy 191 CITY Moab STATE UT ZIP 84532

PHONE NUMBER: (435) 259-6755

10. FIELD AND POOL, OR WILDCAT: Undesignated

4. LOCATION OF WELL

FOOTAGES AT SURFACE: Northing 100789.17, Easting 2551105.70, Elevation 4033.40

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 35 25S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: 10/1/2007	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☑ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

See attached program for plugging and abandonment of Well Buckeye No. 1 in Moab. Work to begin on or about October 1, 2007. A plugging report will be issued after completion.

Please forward approval notice to attention of:

Wally Swartz
PB Energy Storage Services, Inc.
11757 Katy Freeway, Suite 600
Houston, Texas 77079

RECEIVED
SEP 2 0 2007
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Wally Swartz - Project Manager, 281-589-5810 TITLE Agent for Enterprise Products Operating, LP

SIGNATURE Wally Swartz DATE 9/18/2007

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 10/26/07
BY: (See Instructions on Reverse Side)

COPY SENT TO OPERATOR
Date: 10.30.07
Initials: RM

(5/2000)

* Well Completion Report of reentry work should be submitted

1.0 INTRODUCTION

Enterprise Cavern Well No. 1 in Moab, Utah is to undergo some cavern integrity testing as outlined in the proposed Cavern No. 1 Test Program. To test the program, the existing cement plug and plugging hardware will have to be drilled out completely. If the test program is successful, the plugs will not be replaced, instead a repair program will be developed to reconfigure the well for hydrocarbon storage. After reconfiguration, the well/cavern system will undergo a mechanical integrity test via a method proposed to, and approved by the State of Utah.

Should the test program determine that the cavern is not capable of hydrocarbon storage service, the well will be plugged and abandoned. The intent of the plugging program is to plug and abandon the well in accordance with the requirements of the State of Utah Department of Environmental Quality.

2.0 PREPARATION

2.1 Test Hardware – All tubing, temporary packer installations and any other hardware will be removed from the well bore.

2.2 The cavern will be filled with saturated brine.

3.0 PROCEDURE

3.1 A cast iron bridge plug will be set above the bottom of the 7" casing at approximately 1480'.

3.2 Prior to cementing, the well will be checked to ensure that all fluids are static. Neat API Class B or ANSI Type II cement will be spotted in the 7" casing, above the bridge plug, from approximately 1480' to 800'. (Approximately 135 sacks.) This cement plug will straddle the Top of Salt and the end of the 8-5/8" casing, up to the perforations in the casing. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond.

3.3 The cement will be allowed to cure overnight.

3.4 The location of the plug will be verified by tagging it with the work string.

3.5 After verifying the first plug, approximately 160 sacks of Class B/Type II cement will be pump into the 7", just above the perforated zone, at a depth of approximately 680'. The cement will be allowed to flow to an equilibrium level equivalent to the formation pressure outside the perforations. The cement will be allowed to cure overnight.

3.6 The top of the plug will be tagged with the work string to verify the location of the top of the cement.

3.7 If all the perforations are covered, the final cement plug will be prepared. If it is determined that additional cement is needed to cover the perforations, additional cement will be pumped into the 7" above the top of the last plug and the previous two steps will be repeated.

3.8 Once the perforations are covered, the amount of cement necessary to fill the remainder of the 7" to the surface will be calculated. The final quantity of Class B / Type II cement will be pumped into the 7" with

the cementing string until it gets within 10 feet of the surface. The cement will cure for 24 hours and the level will be monitored at the end of the operation to verify the final level. If necessary, cement will be added to the top of the well to bring the final level to the surface. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond. After curing, the location of the cement plug will be verified to ensure that the cement level did not fall.

3.9 Following the curing of cement, the product casing will be cut down to the surface and a steel pipe cap will be welded over the end of the casing. The cap will be left above grade and will serve as a marker for the well location.

3.10 A licensed professional surveyor will prepare a map showing the coordinates and elevation of the cap on the well location. A copy of the map will be provided to the Utah DEQ, Division of Water Quality.

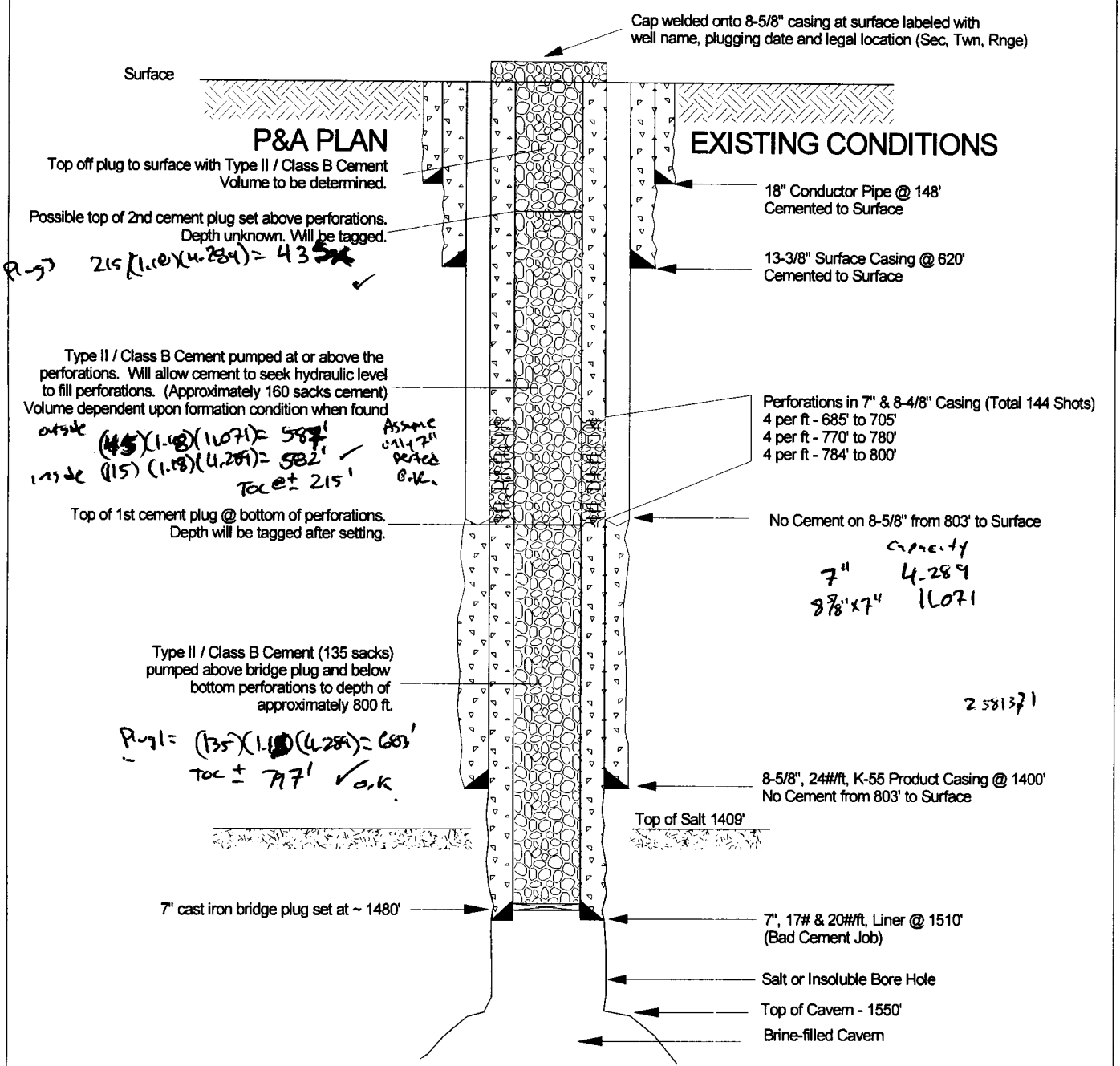
4.0 REPORTING

4.1 As required by the Underground Injection Control Permit, a plugging and abandonment report will be completed and submitted to the DEQ within 60 days after completion of plugging activities.

5.0 DRAWINGS

5.1 50653O-P1-B – Proposed Well No. 1 Plugging Plan

Storage Well No. 1
Plug and Abandon Plan



REVISED 7/6/07

PB Energy Storage Services, Inc.
Engineering - Construction - Operations - Maintenance
11757 Katy Freeway #600
Houston, Texas 77079

ENTERPRISE PRODUCTS
MOAB, UTAH

MOAB WELL NO. 1 PLUG AND ABANDON PLAN

JOB. NO. 50653O

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING NO.
WJS	WJS		07/06/07	NONE	50653O-P-1B

PB Energy Storage Services, Inc
ENGINEERING – CONSTRUCTION – OPERATIONS – MAINTENANCE
A Parsons Brinckerhoff Company

11757 Katy Freeway, Suite 600
Houston, Texas 77079

(281) 496-5590(Voice)
(281) 589-5865 (Fax)

January 3, 2008

T25S R21E S-35
43-019-31474

Ms. Candace Cady
Underground Injection Control (UIC) Program Coordinator
Utah DEQ, Division of Water Quality, Ground Water Protection Section
288 North 1460 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Mr. Dan Jarvis
Field Operations Manager
Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

Re: Certification
Plugging and Abandonment Report
Enterprise Products Operating L. P.
Storage Well Buckeye No. 1
Moab, Utah

I, the undersigned, state: That I am employed by PB Energy Storage Services, Inc., agent for Enterprise Products Operating L.P., and that I have reviewed the contents of this report, and that all facts stated herein are true, correct and complete to the best of my knowledge.

Signature: Elmer A. Brown Title: Field Supervisor

Date: 01-07-08

RECEIVED
JAN 11 2008
DIV. OF OIL, GAS & MINING

PB Energy Storage Services, Inc.

ENGINEERING · CONSTRUCTION · OPERATIONS · MAINTENANCE

A Parsons Brinckerhoff Company

T 25S R 21E S 35
43-019-31474

REPORT OF PLUGGING
ENTERPRISE PRODUCTS OPERATING L.P.
WELL: BUCKEYE NO. 1

Moab, Utah

October 22, 2007 – October 31, 2007

Prepared by

Wally Swartz

PB Energy Storage Services, Inc.

Houston, TX

PB Energy Storage Services, Inc.
ENGINEERING · CONSTRUCTION · OPERATIONS · MAINTENANCE
A Parsons Brinckerhoff Company

Project No. 50653X

October 2007

TABLE OF CONTENTS

1.0 INTRODUCTION

This report summarizes the plugging of Buckeye Well No. 1 as performed by PB Energy Storage Services, Inc. (PB ESS) on behalf of Enterprise Products Operating L.P.

Well Data	
Client	Enterprise Products Operating L.P.
Location	Moab, Utah
Well No.	Buckeye No. 1
Start Date	October 22, 2007
Completion Date	October 31, 2007

The following personnel participated in the well workover.

Workover Participants	Company
E. L. Brown	PB ESS Field Supervisor
Robert Randall	Enterprise Site Representative
Wally Swartz	PB ESS Project Manager

2.0 WELL PLUGGING CHRONOLOGY

The following is a chronology of the work taken from PB ESS Field Supervisors' daily reports and the Project Manager's notes.

October 22, 2007

Key Energy equipment arrived at the Enterprise Moab Facility, was unloaded and spotted at the well. The workover rig arrived at 12:30. Rental tools and fork lift also were off loaded. Rig anchors were tested on both Well No. 1 and No. 2. The pump and tank for the rig were set up and the work string was tallied. Shut down for the day.

October 23, 2007

Held safety meeting. Hi-Tech Rental Tools delivered the API 6" 3M work spool. for well 1. Removed the temporary flange from the wellhead, and installed the 6" 3M X 6" 3M spool with side outlets, and installed the BOP. Function tested the BOP and rigged up the work floor.

Jet West Wireline rigged up and ran a 5.9" gauge ring and junk basket in the 7" casing. The gage tagged something at 683' just above the top of the perforations that the gage could not get through. Came back out, and ran in with a down hole video camera. The camera found some residual cement on the wall of the casing from 600' to the perfs at 683'. Some debris was evident at 683' that looked like some of the formation fell in from the perfs.

Removed the camera and picked up about one hundred additional pounds of weight for the wireline. Ran in the 5.9" gauge ring, weight, and junk basket, and worked through the spot at 683', and another rough spot at 1305', tagging up at 1507'.Pulled out the junk basket then ran in with the 5.61" cast iron bridge plug (CIBP) and set the CIBP in the 7" casing at 1480'. Pulled out wireline, rigged down and moved out Jet West.

Ran in with 2 7/8" work string, cut with a mule shoe on the end, tagged the CIBP at 1480'. Rigged up Key Energy cementing equipment at 15:00. Key pumped a balanced plug into the 7" from 1480' to 800'. Pulled out work string, laying down 21 joints and stacking the remainder in the derrick. Shut in for the day to allow cement to cure.

October 24, 2007

Held safety meeting. Opened up the well, found no pressure. Ran tubing in well and tagged the plug at 784'. Mixed and spotted a 175 sack plug with 2 % calcium chloride from 784' to the surface. Received two barrels of cement returns at the surface. Cement trucks left location for another job. Pulled out and laid down all the tubing. Waited on cement from 10:00 until 14:00, when the Key cement trucks returned to the location. Ran in tubing and found the top of the cement plug at 75 feet. Laid down the tubing. Rigged down the work

floor and removed the BOP and 6" spacer spool. Planned to top off the plug with 20 sacks cement, but Key equipment broke down and could not be fixed on location. Rigged down and moved out the Key cement equipment. Rigged down the workover rig and moved to Buckeye Well No. 2 and spotted the skid and rig. Shut down.

October 27, 2007

After completing cement plug at Well No. 2, moved over to Well No. 1 and topped off the plug in the 7" with approximately 20 sacks of Class 5 cement with 2% calcium chloride, from 75 feet to the surface.

October 29, 2007

Held safety meeting. Welder cut off the 6" 3M rented flange and it was sent back with to Weatherford. Dug down about 1 ½ feet to the 13 3/8" surface casing. Cut a hole in the side of the 8 5/8" to release any trapped pressure. Then cut off the plates that were holding the 7" to the 8 5/8 casing. Also cut off the plates that were holding the 13 3/8" to the 8 5/8" casing.

Excavated around the well to an approximate depth 7 ½ feet. Split the top of the outer 18" and chipped enough cement to get to the 13 3/8". Cut off the 13 3/8", the 8 5/8", and the 7" casing that was above the bottom of the hole. Finished trimming down the 13 3/8" casing and shut down.

October 30, 2007

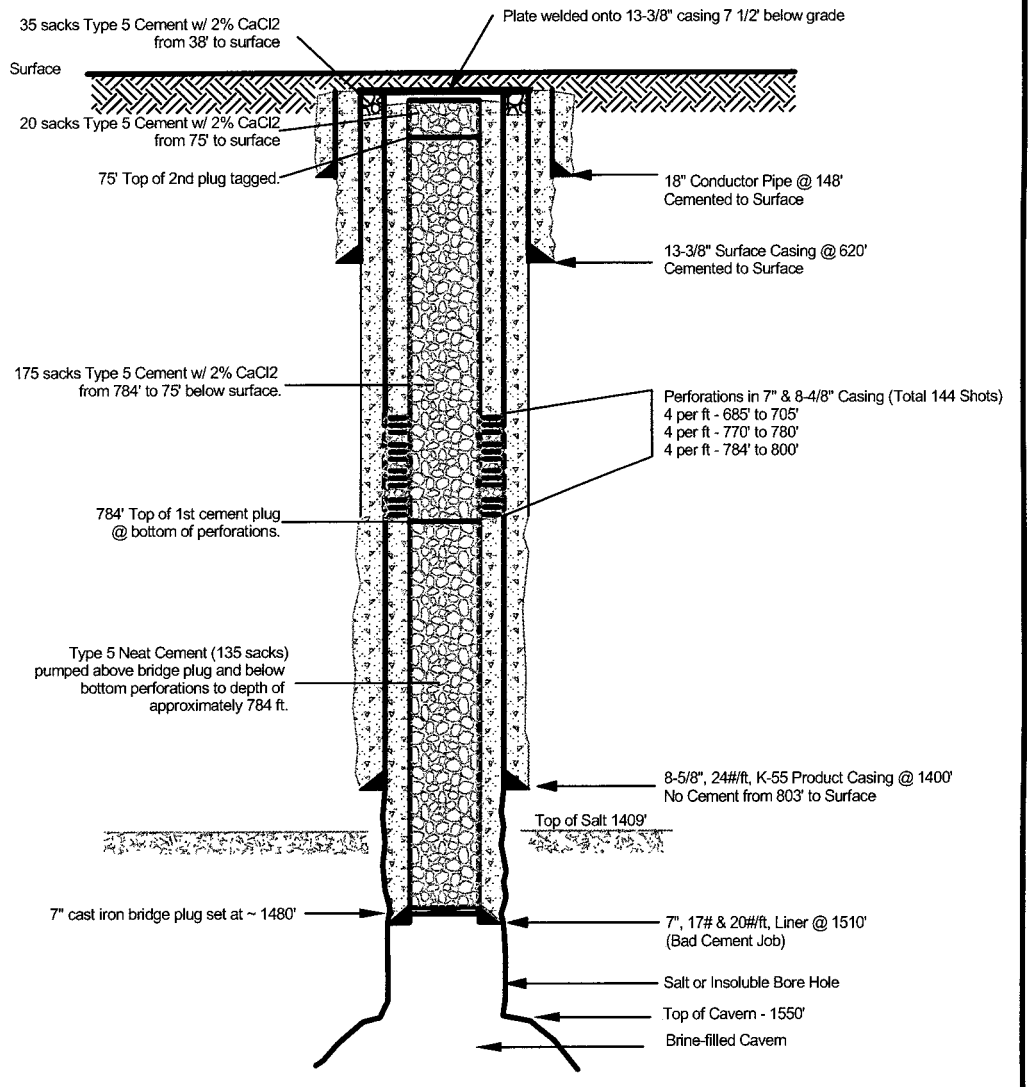
Held safety meeting. Located the top of the cement behind the 8 5/8" at 38 feet below surface using a string and a nut. Ran four 10 foot sections of 1 ½" PVC pipe inside the annulus between the 8 5/8" and 13 3/8" casing, down to the top of the cement. Waited on the cement truck, but Key was held up on another cement job.

October 31, 2007

Held safety meeting. Key Energy cement unit moved in and rigged up. Pumped 35 sacks of cement with 2% calcium chloride through the 1 ½" PVC pipe between the 8 5/8" and 13 3/8" casing and let it set for three hours. Cement level looked good. Welded on a ½" steel plate over the 13 3/8" and backfilled the cellar around the well. Enterprise placed a marker over the top of the well site. (Surveyors determined the GPS coordinates of the well location at a later date. Results are included in this report.)

3.0 PLUGGING AS BUILT

Storage Well No. 1
Plug and Abandon - As Built

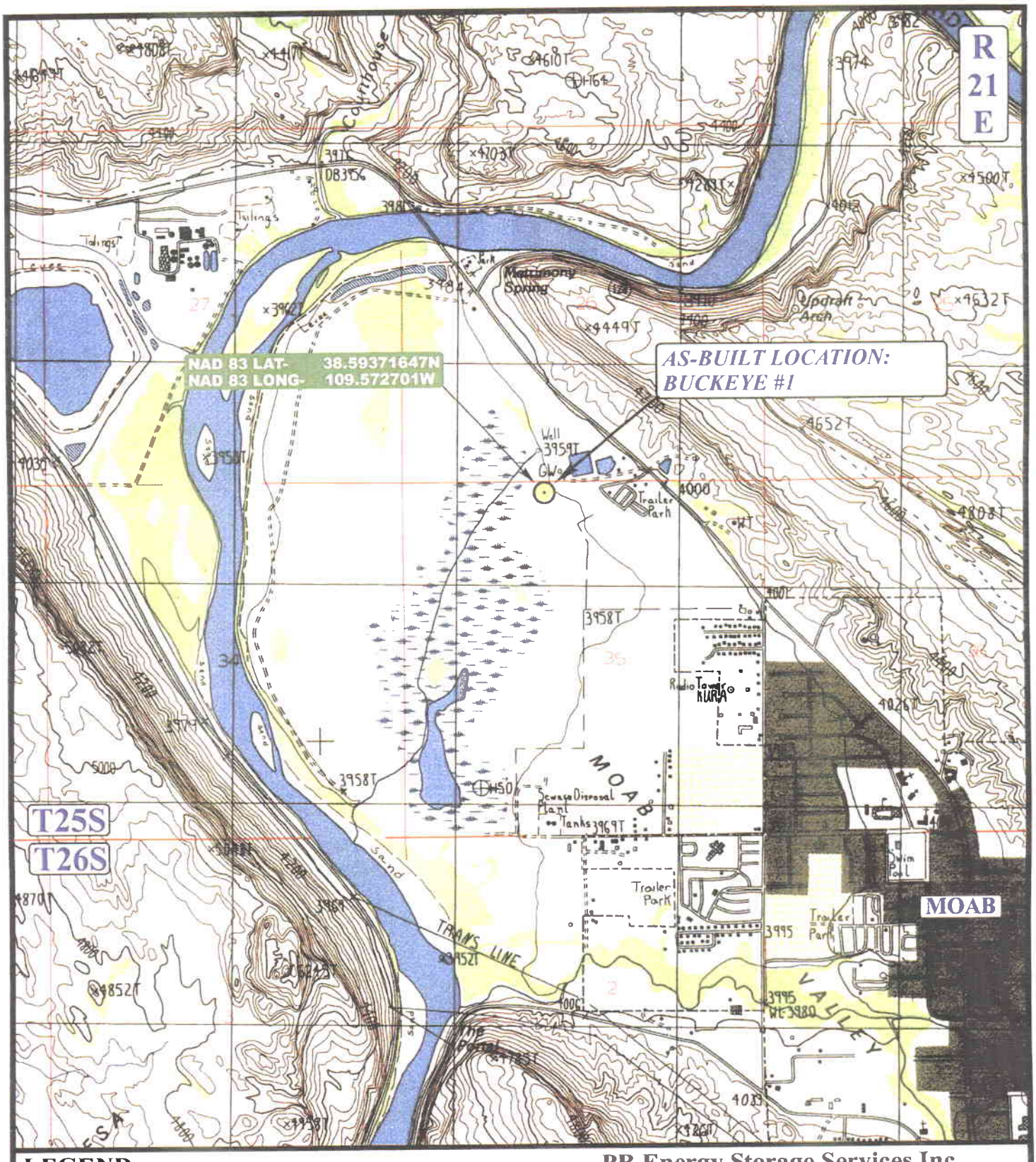


REVISED 7/6/07

PB Energy Storage Services, Inc. Engineering - Construction - Operations - Maintenance 11757 Katy Freeway #600 Houston, Texas 77079	ENTERPRISE PRODUCTS MOAB, UTAH
BUCKEYE WELL NO. 1 PLUG AND ABANDON - AS BUILT	JOB. NO. 50653S

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING NO.
WJS	WJS		12/12/07	NONE	50653S-P-1

4.0 WELL LOCATION



LEGEND:

⊙ AS-BUILT LOCATION

N

PB Energy Storage Services Inc.

As-Built Buckeye #1
SECTION 35, T25S, R21E, S.L.B.&M.
NE NW

UELS
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	12 MONTH	03 DAY	07 YEAR	B TOPO
SCALE: 1:2,000	DRAWN BY: LDK	REVISED: 00-00-00		

5.0 VENDOR LIST

The following companies were involved in this work.

Vendor/Description	Contact	Phone/Fax
Key Energy Services, Inc. (workover services & B.O.P.'s)	Mike Leonard	505-327-0416 505-327-4962 fax
Key Energy Services, Inc. (cementing services)	Mike Leonard	505-327-0416 505-327-4962 fax
San Juan Casing Services (casing crew – pulling casing)	Ron Fellabaum	505-325-5835 550-327-7286 fax
John's Welding, Inc. (welding services)	John	970-625-5022 970-625-9178 fax
Henderson Construction (backhoe services w/operator)	Yvette	435-259-4111 435-259-4117 fax
Jet West Geophysical Services, LLC (setting 9 5/8" cast iron bridge plug)	Mike Thomason / Mick Peterson	505-326-1415 505-325-7932 fax
Weatherford International, Inc. (rental tool services)	Nate Sunkees	435-789-0445
Grand Rental Center (8,000# all terrain forklift)	Ambrose	435-259-6976 435-259-4312 fax
Harrison Oilfield Services (water truck – transfer water from pit to tank)	Sales	435-259-6430 435-260-8620 fax Call before sending fax
Single Shot Trucking, Inc. (miscellaneous hot shot services)	Veda	435-247-2551 435-722-2279 fax
Prairie Dawg, Inc. (port-o-let + delivery)	Aron	435-259-5228 435-259-5353 fax
High Tech Rental Tools (rental tools)	Ryan	505-334-2266 505-334-1770 fax
K. L. Young (backhoe services w/operator)	K. L. Young	435-259-1625 435-260-9720 cell 435-259-6900 fax
Uintah Engineering & Land Surveying	Robert Kay	435-789-1017 435-789-1813
Montezuma Well Service (pipe racks, cat walk, pumps, pit)	Earl Martinez	435-651-3469 435-651-3409 fax
Mo-Te Inc. (test anchors)	Sales	505-325-1666 505-327-0336 fax

6.0 CEMENT REPORTS

Key Pressure Pumping Services

CEMENT JOB DETAIL REPORT

CUSTOMER NAME: PB Energy	DATE: October 23, 2007	F. R. #: 70078084	JOB TYPE:	7" Surface
LEASE & WELL NAME: Buckeye #1	LOCATION: Sec.,TN,RW	SERVICE SUP: Dean Mestas	WELL TYPE:	Old Gas
DRILLING CONTRACTOR & No.: -	OPERATOR: -	COUNTY: Grand	STATE: Utah	

MATERIALS FURNISHED:	TYPE OF PLUGS		LIST CSG. HARDWARE	SQUEEZE MANIFOLD	TOP OF EACH FLUID	PHYSICAL SLURRY PROPERTIES					
	TOP	-				SLURRY WEIGHT LB/GAL	SLURRY YIELD CU-FT	WATER REQ. GPS	PUMP TIME HR. MIN.	BBL SLURRY	BBL MIX WATER
	BOTTOM										
Pumped: 135 sacks Cement Type 5 Neat				(162.0cuft)	1480'- 784'	15.5	1.20	5.4		28.9	17.2

AVAILABLE MIX H2O:	80.0 Bbl	AVAILABLE DISPL. H2O:	80.0 Bbl	Total cu ft:	162.0cuft	TOTAL SLURRY/WATER:	28.9	17.2

HOLE			TBG./CSG./D.P.				TBG./CSG./D.P.					COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	SIZE	WEIGHT	TYPE	DEPTH	SIZE	WEIGHT	TYPE	DEPTH		SHOE	FLOAT	STAGE
			2 3/8	4.7#	J-55	1480'	7	17.0#	J-55	1480'				

LAST CASING				PKR-CMT RET-BR PL-LINER		PERF DEPTHS			TOP CONNECTION			WELLBORE FLUID	
SIZE	WEIGHT	TYPE	DEPTH	BRAND & TYPE	DEPTH	TOP	BOTTOM		SIZE	THREAD		TYPE	WEIGHT
									2 3/8	8 Round		Produced Water	

CALCULATED DISPLACEMENT VOLUME; BBL				CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG. PSI		MAX CASING PSI			DISPLACEMENT FLUID		WATER
TUBING	CASING	CASING	TOTAL	BUMP PLUG	TO REVERSE	SQ. PSI	RATED	OP	RATED	OP		TYPE	WEIGHT	SOURCE
										1,500		Fresh Water	8.34	Water Truck

EXPLANATION OF ANY TROUBLES PRIOR TO CEMENTING:

PRESSURE, RATE, AND FLUID DETAIL						EXPLANATION
TIME HR: MIN	PRESSURE - PSI PIPE	PRESSURE - PSI ANNULUS	RATE BPM	BBL FLUID PUMPED	FLUID TYPE	SAFETY MEETING: KEPPS CREW ☑ CO. REP ☑ RIG CREW ☑ — CIRCULATING WELL: KEPPS ☐ RIG CREW ☐ OTHER ☐
						TEST LINES: 2000 psi
14:45	-	-	-	-	-	Arrive on location, safety meeting, rig-up
15:34		-	3.6	15.0	H2O	Start H20 w/ 15.0 bbl H20 to circulate hole
15:39		-	3.5	28.9	Cement	Start Cement w/ 28.9 bbl slurry (135sx)
15:48		-	3.5	3.0	H2O	Start Displacement w/ 3.0 bbl H20
15:50	-	-	-	-	-	SD, TOH, WOC, rig down

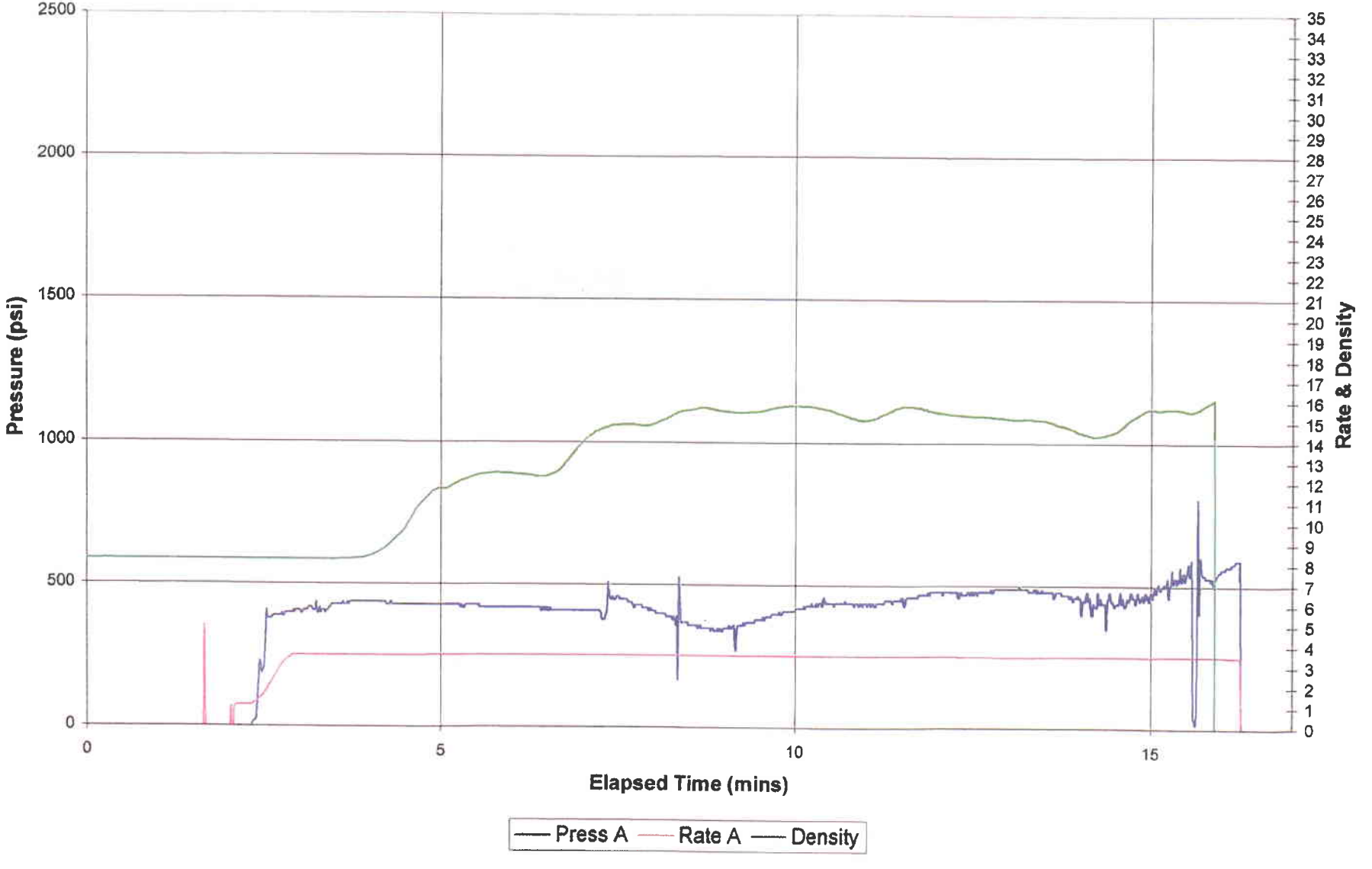
BUMPED PLUG	PUMP PSI TO BUMP PLUG	TESTED FLOAT EQUIPMENT	TOTAL BBL. PUMPED	BBL CMT. RETURNS/ REVERSED	PSI LEFT ON CSG/TBG	TOP OF CEMENT	
			48.9			788'	

KEPPS REPRESENTATIVE: Dean Mestas 102307

CUSTOMER REPRESENTATIVE: Mr. E.L. Brown

CUSTOMER REP. SIGNATURE:

PB Energy Services
Buckeye #1
P&A - 1st Plug
Oct. 23, 2007



Key Pressure Pumping Services

CEMENT JOB DETAIL REPORT

CUSTOMER NAME:	PB Energy	DATE:	October 24, 2007	F. R. #:	70079888	JOB TYPE:	P & A
LEASE & WELL NAME:	Buckeye #1	LOCATION:	Sec., TN, RW	SERVICE SUP:	Dean Meetas	WELL TYPE:	Old Gas
DRILLING CONTRACTOR & No.:	-	OPERATOR:	-	COUNTY:	Grand	STATE:	Utah

MATERIALS FURNISHED:	TYPE OF PLUGS		LIST CSG. HARDWARE	SQUEEZE MANIFOLD	TOP OF EACH FLUID	PHYSICAL SLURRY PROPERTIES					
	TOP	-				SLURRY WEIGHT LB/GAL	SLURRY YIELD CU-FT	WATER REQ. GPS	PUMP TIME HR. MIN.	BBL SLURRY	BBL MIX WATER
	BOTTOM										
Pumped:	175 sacks Cement Type 5 w/ 2% CaCl2			(210.0cuft)	784'- Surface	15.5	1.20	5.4		37.4	22.3
AVAILABLE MIX H2O:	80.0 Bbl	AVAILABLE DISPL. H2O:	80.0 Bbl	Total cu ft:	210.0cuft				TOTAL SLURRY/WATER:	37.4	22.3

HOLE			TBG.-CSG.-D.P.				TBG.-CSG.-D.P.				COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	SIZE	WEIGHT	TYPE	DEPTH	SIZE	WEIGHT	TYPE	DEPTH	SHOE	FLOAT	STAGE
			2 3/8	4.7#	J-55	784'	7	17.0#	J-55	784'			

LAST CASING				PKR-CMT RET-BR PL-LINER		PERF DEPTHS			TOP CONNECTION			WELLBORE FLUID	
SIZE	WEIGHT	TYPE	DEPTH	BRAND & TYPE	DEPTH	TOP	BOTTOM		SIZE	THREAD		TYPE	WEIGHT
									2 3/8	8 Round		Produced Water	

CALCULATED DISPLACEMENT VOLUME; BBL				CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG. PSI		MAX CASING PSI		DISPLACEMENT FLUID		WATER
TUBING	CASING	CASING	TOTAL	BUMP PLUG	TO REVERSE	SQ. PSI	RATED	OP	RATED	OP	TYPE	WEIGHT	SOURCE
										1,500	Fresh Water	8.34	Water Truck

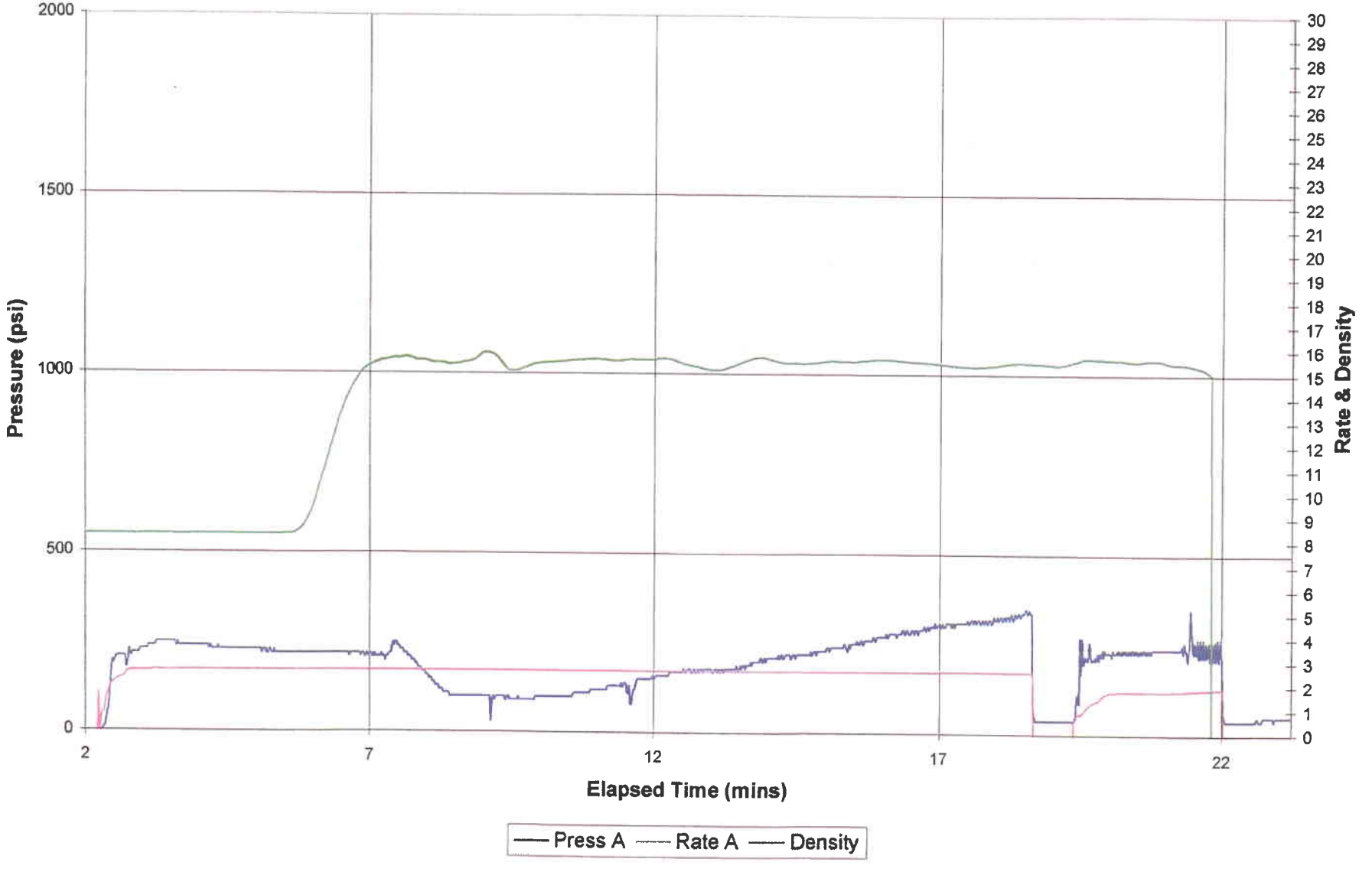
EXPLANATION OF ANY TROUBLE PRIOR TO CEMENTING:

PRESSURE, RATE, AND FLUID DETAIL						EXPLANATION
TIME	PRESSURE - PSI		RATE	BBL FLUID	FLUID	SAFETY MEETING: KEPPS CREW ☑ CO. REP ☑ RIG CREW ☑ CIRCULATING WELL: KEPPS ☐ RIG CREW ☐ OTHER ☐
HR: MIN:	PIPE	ANNULUS	BPM	PUMPED	TYPE	TEST LINES: 2000 psi
6:45	-	-	-	-	-	Arrive on location, safety meeting, rig-up
8:41	200	-	2.6	10.0	H2O	Start H20 w/ 10.0 bbl H20 to circulate hole
8:45	250	-	2.6	37.4	Cement	Start Cement w/ 37.4 bbl slurry (175sx)
9:00	-	-	-	-	-	SD, TOH, WOC, rig down

BUMPED PLUG	PUMP PSI TO BUMP PLUG	TESTED FLOAT EQUIPMENT	TOTAL BBL. PUMPED	BBL CMT. RETURNS/ REVERSED	PSI LEFT ON CSG/TBG	TOP OF CEMENT	
			47.4	2.0		Surface	

KEPPS REPRESENTATIVE: Dean Meetas 102407
CUSTOMER REPRESENTATIVE: Mr. E.L. Brown
CUSTOMER REP. SIGNATURE:

PB Energy
Buckeye #1
P&A - Plug #2
Oct. 24, 2007



KEY ENERGY
PRESSURE PUMPING SERVICES

CEMENT JOB DETAIL SHEET

CUSTOMER:	PB ENERGY	DATE:	October 31, 2007	F. R. #:	70079880	TYPE OF JOB:	TOP SPOT
LEASE & WELL NAME:	BUCKEYE #1	LOCATION:	0	SERVICE SUP:	LEO PACHECO	TYPE OF WELL:	OLDGAS
DRILLING CONTRACTOR & No.:	RIG LESS	OPERATOR:	0	COUNTY:	GRAND	STATE:	UTAH

MATERIALS FURNISHED:	TYPE OF PLUGS		LIST CSG. HARDWARE	SQUEEZE MANIFOLD	TOP OF EACH FLUID	PHYSICAL SLURRY PROPERTIES					
	TOP					SLURRY WEIGHT LB/GAL	SLURRY YIELD CU-FT	WATER REQ. GPS	PUMP TIME HR. MIN.	BBL SLURRY	BBL MIX WATER
	BOTTOM										
Pumped: 35 sacks Cement Type 5 w/ 2% CaCl2				(42.0cuft)	Surface	15.5	1.20	5.3		7.5	4.4

AVAILABLE MIX H2O:	100 Bbl	AVAILABLE DISPL. H2O:	0 Bbl	Total cu ft:	42.0cuft	TOTAL SLURRY/WATER:	7.5	4.4

HOLE			TBG.-CSG.-D.P.				TBG.-CSG.-D.P.				COLLAR DEPTHS		
SIZE	% EXCESS	DEPTH	SIZE	WEIGHT	TYPE	DEPTH	SIZE	WEIGHT	TYPE	DEPTH	SHOE	FLOAT	STAGE
12 1/4	0%	38'											

LAST CASING			PKR-CMT RET-BR PL-LINER			PERF DEPTHS		TOP CONNECTION		WELLBORE FLUID	
SIZE	WEIGHT	TYPE	BRAND & TYPE		DEPTH	TOP	BOTTOM	SIZE	THREAD	TYPE	WEIGHT
								2"	8 Round	FRESH WATER	

CALCULATED DISPLACEMENT VOLUME; BBL			CAL. PSI	CAL. MAX PSI		OP. MAX	MAX TBG. PSI		MAX CASING PSI		DISPLACEMENT FLUID		WATER
TUBING	CASING	CASING	BUMP PLUG	TO REVERSE		SQ. PSI	RATED	OP	RATED	OP	TYPE	WEIGHT	SOURCE
		7.5								100	NONE		WATER TRUCK

EXPLANATION: TROUBLE SETTING TOOL, RUNNING CASING, ETC., PRIOR TO CEMENTING

PRESSURE, RATE DETAIL:						EXPLANATION
TIME	PRESSURE - PSI		RATE	BBL FLUID	FLUID	SAFETY MEETING ☑ CREW ☑ CO. REP
HR: MIN:	PIPE	ANNULUS	BPM	PUMPED	TYPE	TEST LINES 0 PSI
						CIRCULATING WELL RIG ☐ WPS ☐
8:10	0	-	0.0	0.0		ARRIVED ON LOC., RIG UP, SAFETY MEETING
8:43	50	-	1.0	7.5	Cement	START CEMENT @ 15.5 PPG.
8:55	0	-	0.0	0.0	Cement	SHUTDOWN,
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				
		-				

BUMPED PLUG	PSI TO BUMP	TEST FLOAT	TOTAL BBL.	BBL CMT. RETURNS/ REVERSED	PSI LEFT ON CSG	SPOT TOP CEMENT

KEY ENERGY SERVICES REP.: LEO PACHECO
CUSTOMER REP. NAME: MR. E.L. BROWN
CUSTOMER REP. SIGNATURE:

APPENDIX A

PLUGGING PROGRAM

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: Fee	6. SURFACE: Fee
7. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA	
8. UNIT or CA AGREEMENT NAME: NA	
9. WELL NAME and NUMBER: Buckeye #1	
10. FIELD AND POOL, OR WILDCAT: Undesignated	
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 35 25S 21E	
12. COUNTY: Grand	13. STATE: UTAH

1A. TYPE OF WORK: DRILL ☐ REENTER ☑ DEEPEN ☐

B. TYPE OF WELL: OIL ☐ GAS ☐ OTHER Salt Cavern SINGLE ZONE ☑ MULTIPLE ZONE ☐

2. NAME OF OPERATOR: Enterprise Products Operating LP

3. ADDRESS OF OPERATOR: 1431 North Hwy 191 CITY, Moab STATE UT ZIP 84532 PHONE NUMBER: (435) 259-6755

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: Northing: 100789.17, Easting 2551105.7
AT PROPOSED PRODUCING ZONE:

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 2 miles NW of Moab U.S. Post Office on Hwy 191

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET): 70' from N. Line, 3,260' from E. Line	16. NUMBER OF ACRES IN LEASE: NA	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET): 500	19. PROPOSED DEPTH: 1,700	20. BOND DESCRIPTION: Financial Guarantee Bond
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 3957.5 DF above Sea Level	22. APPROXIMATE DATE WORK WILL START: 7/13/2007	23. ESTIMATED DURATION: 10 Days

24. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
NA	18"	H-40	87.5	148	Unknown	To Surface	Existing
NA	13-3/8"	H-40	48.0	620	Unknown	To Surface	Existing
NA	8-5/8"	K-55	24.0	1,400	Unknown	To Surface	Existing
NA	7"	K-55	17.0	1,510	Unknown	To Surface	Existing

25. ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
- ☑ COMPLETE DRILLING PLAN
- ☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Wally Swartz (281-589-5810) TITLE Project Manager, PB Energy Storage Services, Inc.

SIGNATURE Wally Swartz DATE 7/13/2007

(This space for State use only)

API NUMBER ASSIGNED: _____ APPROVAL:

(11/2001) (See Instructions on Reverse Side)

Attachment to Form 3 – Application For Permit To Drill

General – This application is for drilling out a 600 foot cement plug and plugging hardware that exists in the Well Buckeye No. 1, presently owned by Enterprise Products Operating LP, in Moab, Utah. The purpose of this work is to perform a hydrostatic test on the cavern in the salt formation that was used in the past for LPG storage service. The results of the test will determine what work will be required for the final disposition of the well and salt cavern.

Please note the following comments in reference to Items on Form 3:

Item 20 – Enterprise Products Operating LP has provided a Financial Guarantee Bond and Standby Trust Agreement with the State of Utah Department of Environmental Quality. The contact for information on this bond is Ms. Candace C. Cady with the UIC of the DEQ. (801-538-9260)

Item 24 – Proposed Casing and Cementing Program – The program shown is the existing casing program in the completed well. The attachments provided with this Form 3 provide additional descriptions of the cement plug and drilling and testing plan with schematic drawings.

Other:

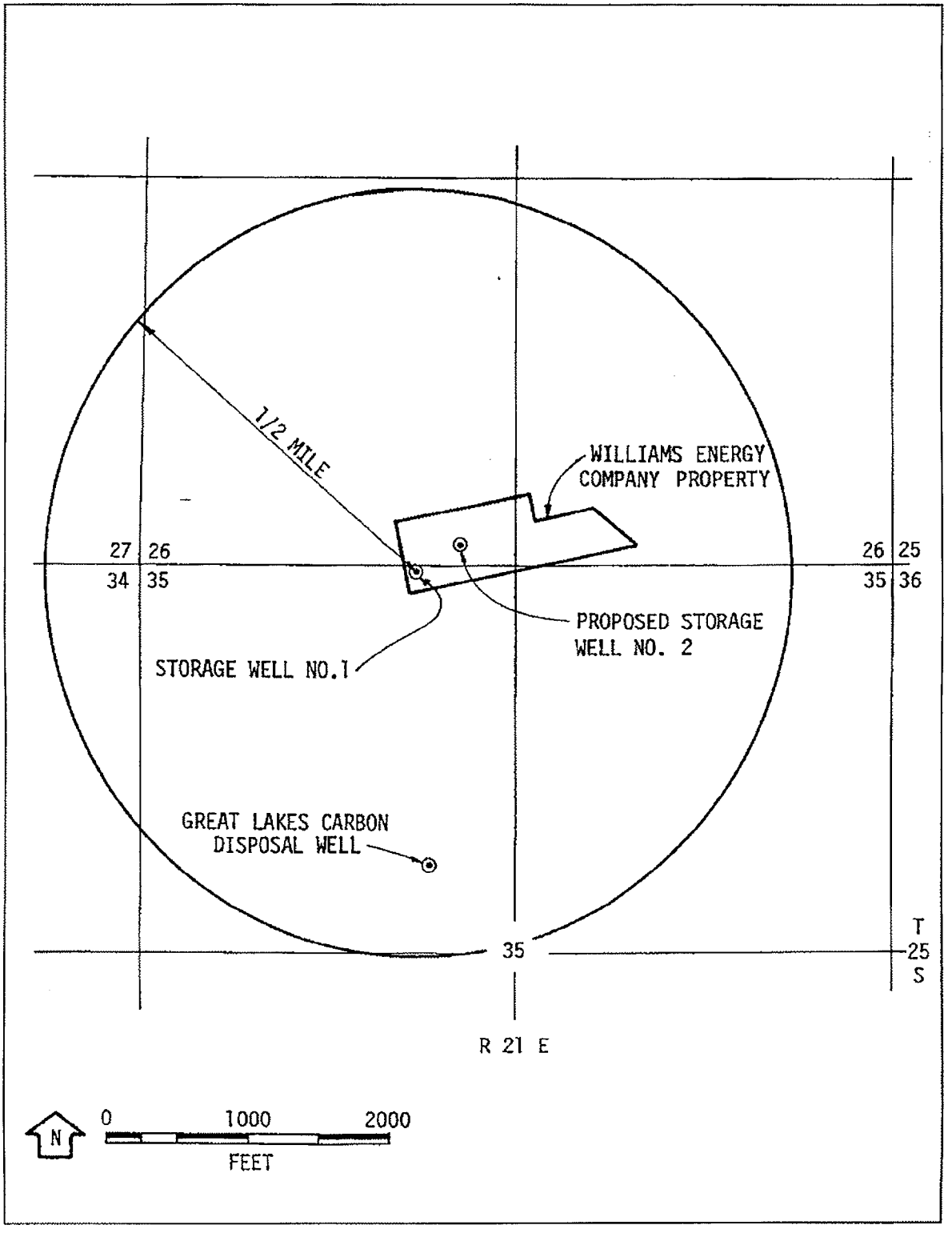
Drilling Fluids, Mud System – The drilling fluid to be is used is salt water from an existing brine pond on the facility property. The brine has been used in past LPG storage operations as displacement fluid for LPG when product is brought out of the well.

Water Rights – No significant fresh water will be used in the drilling operations as described above.

Designated Agent for Enterprise Products Operating LP –

Wally Swartz
Project Manager
PB Energy Storage Service, Inc.
11757 Katy Freeway
Suite 600
Houston, Texas 77079

Office 281-589-5810
Cell 281-723-3788



Location of Buckeye No. 1, Moab, Utah
To be re-entered for test program.

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: Undesignated

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: NA

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Salt Cavern Storage Well

8. WELL NAME and NUMBER: Buckeye No. 1

2. NAME OF OPERATOR: Enterprise Products Operating LP

9. API NUMBER: 4301931474

3. ADDRESS OF OPERATOR: 1431 North Hwy 191 , Moab STATE UT ZIP 84532

PHONE NUMBER: (435) 259-6755

10. FIELD AND POOL, OR WILDCAT: Undesignated

4. LOCATION OF WELL

FOOTAGES AT SURFACE: Northing 100789.17, Easting 2551105.70, Elevation 4033.40

COUNTY: Grand

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 35 25S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: 7/13/2007	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: Cavern Pressure Test
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

See attached program for testing of Well Buckeye No. 1 in Moab. Work to begin on or about July 9, 2007. If testing is successful, a repair plan will be submitted. If testing fails, well will be plugged and abandoned again.

NAME (PLEASE PRINT) Wally Swartz TITLE Project Manager, PB Energy Storage Services, Inc.

SIGNATURE Wally Swartz DATE 7/13/2007

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

1.0 INTRODUCTION

Enterprise Products is considering reactivation of Cavern Well No. 1 at their propane storage facility in Moab, Utah. Well No. 1 had been removed from propane storage service in 1979, and in 2005 the well was plugged and abandoned. A schematic diagram of the current configuration of the well is attached.

The objective of the following Mechanical Integrity Test (MIT) program is a preliminary step to determine if the underground storage cavern has mechanical integrity suitable for storage of hydrocarbons. It is understood that the well casing is not presently suitable for storage operations and would need extensive repairs and/or installation of a casing liner. This first step is to determine if the salt cavern is acceptable for storage operations. Should the cavern show mechanical integrity by this test, additional steps will be necessary to repair the well, and then perform a mechanical integrity test of the repaired well and cavern system. That second phase is beyond the scope of this preliminary test program.

This test procedure consists of the following basic steps: Drilling out cement and bridge plugs; setting a bore hole inflatable packer to isolate the cavern from the cased well bore; pressuring the cavern with brine to a given test pressure; recording the cavern brine pressures (at the surface) and the annulus pressure through a given test period.

2.0 PROCEDURE

2.1 Dig out around the well casing to provide access for welding activity.

2.2 Hot tap the weld cap on Well No. 1 and install a bleeder valve to remove any potential pressure in the cavern well. Bleed off any pressure encountered before proceeding.

2.3 Make sure there is no pressure and cut off weld cap and bevel 8-5/8" casing for butt weld.

2.4 Weld on 8-5/8" casing extension with API 2000, or ANSI 600, RTJ weld neck flange to provide for well control.

2.5 Move in workover rig with pump and tank. Nipple up well control equipment and function test.

2.6 Rig up power swivel and pump system.

2.7 Pick up 6-1/4" bit, drill collars and work string.

2.8 Rig up mud system and mix drilling mud. (Gel / brine mud)

2.9 Drill out cement plug down to cement retainer at ~644'. Drill out cement retainer. If required, change bit to mill to drill through retainer.

2.10 Drill cement from below the retainer to bridge plug at ~707' then drill through the bridge plug. If required, change bit to mill to drill through bridge plug.

2.11 NOTE: When drilling through cement retainer or bridge plug watch for pressure and/or pipe movement from downhole pressure.

2.12 Run bit below cavern roof at ~1550' to make sure hole is clear to cavern.

2.13 Rig down drilling tools and pipe.

2.14 Run 7" scraper to clean out cement residue. If necessary run mill through 7" casing to clean out cement.

2.15 Rig up wireline unit and run X-Y caliper log in bore hole from cavern roof at 1550' to 50' above casing shoe to determine if the bore hole is acceptable for the inflatable packer.

2.16 Run CCL from casing shoe to surface to determine collar locations and end of 7" casing.

2.17 Run in with inflatable packer and set packer in bottom joint of 7" casing for casing shoe/cavern test at approximately 1510'.

2.18 Close Hydril on tubing and install pressure-monitoring equipment on well connections to allow continuous monitoring of tubing (cavern) and annulus wellhead pressures. Install pressure recorder to monitor Cavern No. 2 tubing and annulus pressures before and during the testing of Cavern No. 1.

2.19 Inject saturated brine into Well No. 1 tubing and pressure up cavern below the packer to 0.75 psi/ft gradient. (~348 psig at surface). Make sure well bore above the packer is full of brine.

2.20 Monitor pressures for 48 to 72 hours. Plot pressure vs. time to determine rate of pressure decline. Also check the surface pressures on Cavern No. 2 to ensure that there is no communication of fluid between the caverns.

2.21 If pressures indicate cavern mechanical integrity, end test. If necessary, re-pressure and retest as required.

2.22 If casing shoe/cavern test is unsuccessful and bore hole is acceptable, run in with inflatable packer and set packer in bore hole at selected depth (~1520').

2.23 Close Hydril on tubing and install pressure-monitoring equipment on well connections to allow continuous monitoring of tubing (cavern) and annulus wellhead pressures.

2.24 Inject saturated brine into tubing and pressure up cavern below the packer to 0.75 psi/ft gradient. (~353 psig at surface). Make sure well bore above the packer is full of brine.

2.25 Monitor pressures for 48 to 72 hours. Plot pressure vs. time to determine rate of pressure decline.

2.26 If pressures indicate cavern mechanical integrity, end test. If necessary, re-pressure and retest as required.

3.0 PROGRAM OPTIONS

If logging results or attempts to set the packer indicate the bore hole cannot be sealed with the packer, PB ESS will consult with Enterprise to consider optional steps before proceeding. These may include:

3.1 Mill out some of the 7" casing to open bore hole above the 7" casing shoe and attempt to set the packer.

3.2 Set the packer in the exiting borehole and then try to set a cement plug above the packer to seal the cavern.

3.3 Other options may be considered depending upon the conditions found in the field.

4.0 TEST RESULTS

4.1 If results indicate the test period must be extended, repeat steps 2.20 to 2.22 as required.

4.2 After the test, bleed off the brine pressure. Do not allow the cavern pressure change to exceed 2.5 psi per minute.

5.0 REPORT ON TEST RESULTS

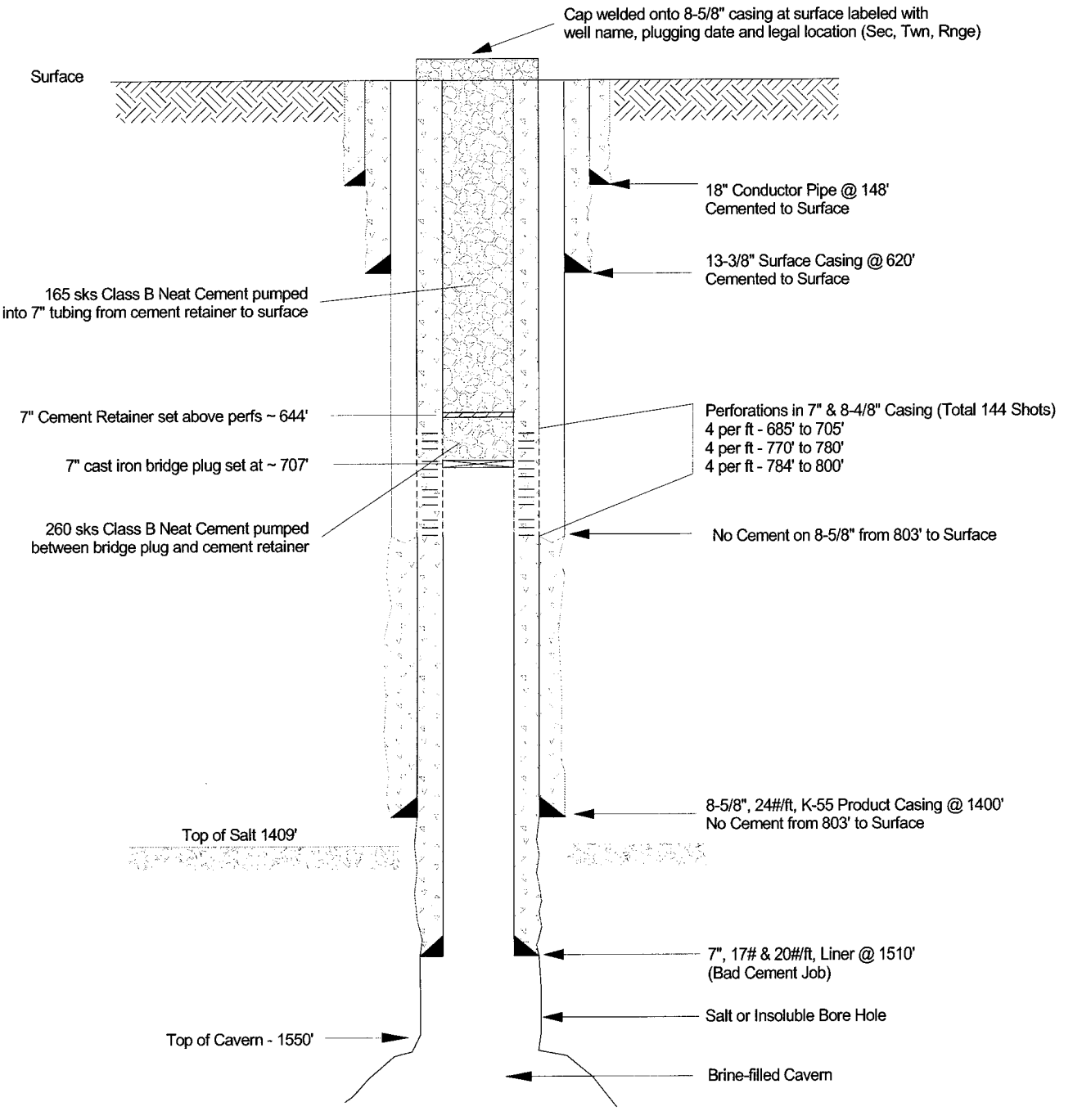
5.1 Prepare a written report presenting test procedures, results and conclusions, along with a chronology of test activity, wireline logs, wellhead pressure records, and supporting calculations.

5.2 After the investigation, determine course of action, and tasks required to repair the cased well.

5.3 If it is determined that the cavern test has failed, the well will be plugged and abandoned, according to the plugging and abandonment plan submitted to and approved by the Utah DEQ.

5.4 Develop cost estimate for the well repair plan.

Existing Storage Well No. 1



Reference:
Environmental, LLC "Plugging and Abandonment Report", (8-8-2005)
PB-KBB DWG. 847-LW-001
Fenix & Scisson Sketch - Storage Well No. 1 on Conversion to Brine Disposal

Revision 3 6/30/06

PB Energy Storage Services, Inc.
Engineering - Construction - Operations - Maintenance
11757 Katy Freeway #600
Houston, Texas 77079

ENTERPRISE PRODUCTS
MOAB, UTAH

MOAB WELL NO. 1 EXISTING CONFIGURATION

JOB. NO. 50653I

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING NO.
WJS	WJS		06/06	NONE	50652I-P-1

1.0 INTRODUCTION

Enterprise Cavern Well No. 1 in Moab, Utah is to undergo some cavern integrity testing as outlined in the proposed Cavern No. 1 Test Program. To test the program, the existing cement plug and plugging hardware will have to be drilled out completely. If the test program is successful, the plugs will not be replaced, instead a repair program will be developed to reconfigure the well for hydrocarbon storage. After reconfiguration, the well/cavern system will undergo a mechanical integrity test via a method proposed to, and approved by the State of Utah.

Should the test program determine that the cavern is not capable of hydrocarbon storage service, the well will be plugged and abandoned. The intent of the plugging program is to plug and abandon the well in accordance with the requirements of the State of Utah Department of Environmental Quality.

2.0 PREPARATION

2.1 Test Hardware – All tubing, temporary packer installations and any other hardware will be removed from the well bore.

2.2 The cavern will be filled with saturated brine.

3.0 PROCEDURE

3.1 A cast iron bridge plug will be set above the bottom of the 7" casing at approximately 1480'.

3.2 Prior to cementing, the well will be checked to ensure that all fluids are static. Neat API Class B or ANSI Type II cement will be spotted in the 7" casing, above the bridge plug, from approximately 1480' to 800'. (Approximately 135 sacks.) This cement plug will straddle the Top of Salt and the end of the 8-5/8" casing, up to the perforations in the casing. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond.

3.3 The cement will be allowed to cure overnight.

3.4 The location of the plug will be verified by tagging it with the work string.

3.5 After verifying the first plug, approximately 160 sacks of Class B/Type II cement will be pump into the 7", just above the perforated zone, at a depth of approximately 680'. The cement will be allowed to flow to an equilibrium level equivalent to the formation pressure outside the perforations. The cement will be allowed to cure overnight.

3.6 The top of the plug will be tagged with the work string to verify the location of the top of the cement.

3.7 If all the perforations are covered, the final cement plug will be prepared. If it is determined that additional cement is needed to cover the perforations, additional cement will be pumped into the 7" above the top of the last plug and the previous two steps will be repeated.

3.8 Once the perforations are covered, the amount of cement necessary to fill the remainder of the 7" to the surface will be calculated. The final quantity of Class B / Type II cement will be pumped into the 7" with

the cementing string until it gets within 10 feet of the surface. The cement will cure for 24 hours and the level will be monitored at the end of the operation to verify the final level. If necessary, cement will be added to the top of the well to bring the final level to the surface. All brine displaced during cementing will be contained in a local tank. Recovered brine will be removed by vacuum truck and returned to the brine pond. After curing, the location of the cement plug will be verified to ensure that the cement level did not fall.

3.9 Following the curing of cement, the product casing will be cut down to the surface and a steel pipe cap will be welded over the end of the casing. The cap will be left above grade and will serve as a marker for the well location.

3.10 A licensed professional surveyor will prepare a map showing the coordinates and elevation of the cap on the well location. A copy of the map will be provided to the Utah DEQ, Division of Water Quality.

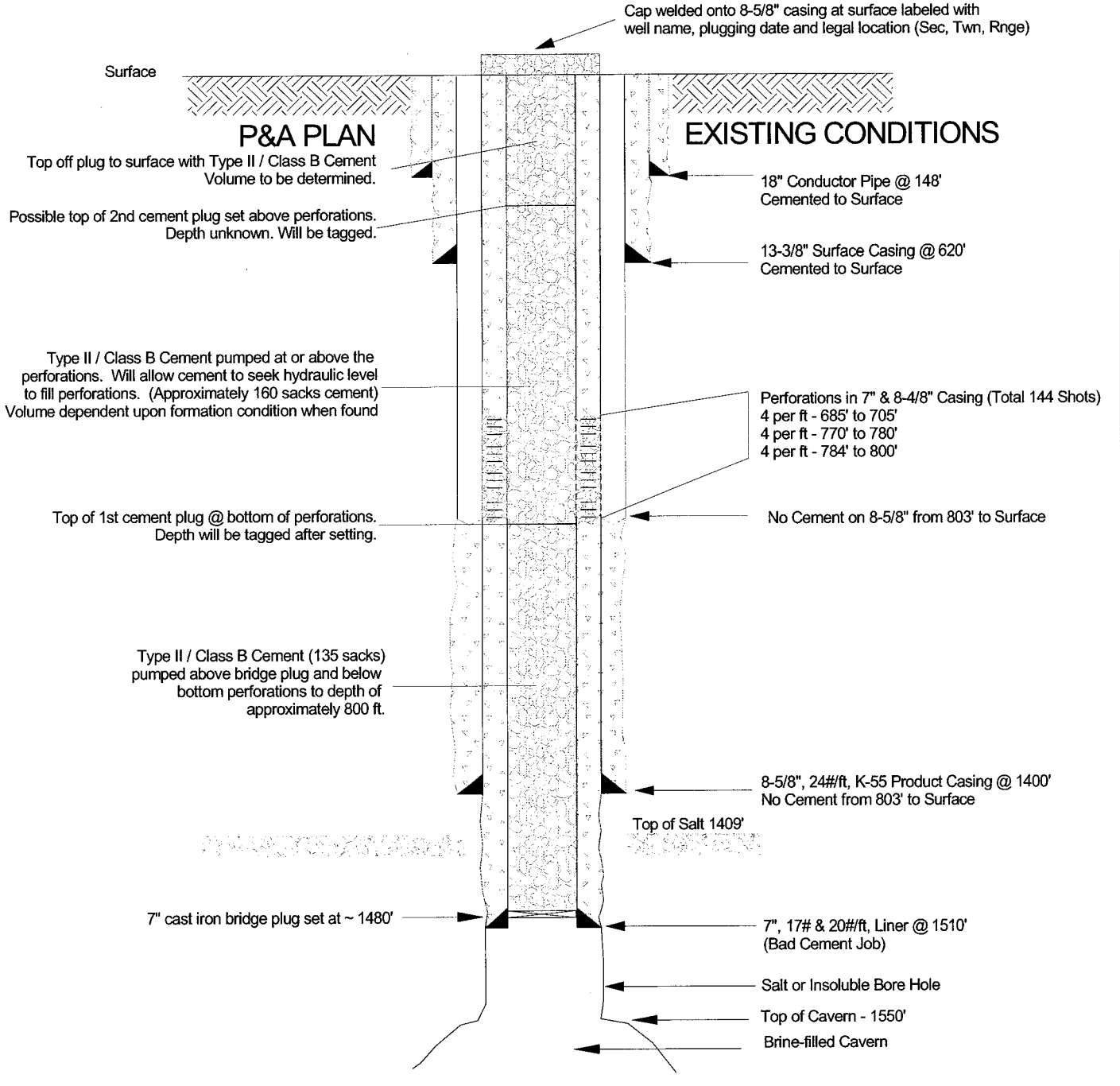
4.0 REPORTING

4.1 As required by the Underground Injection Control Permit, a plugging and abandonment report will be completed and submitted to the DEQ within 60 days after completion of plugging activities.

5.0 DRAWINGS

5.1 50653O-P1-B – Proposed Well No. 1 Plugging Plan

Storage Well No. 1
Plug and Abandon Plan



REVISED 7/6/07

PB Energy Storage Services, Inc.
Engineering - Construction - Operations - Maintenance
11757 Katy Freeway #600
Houston, Texas 77079

ENTERPRISE PRODUCTS
MOAB, UTAH

MOAB WELL NO. 1 PLUG AND ABANDON PLAN

JOB. NO. 50653O

DESIGN:	DRAWN:	CHECKED:	DATE:	SCALE:	DRAWING NO.
WJS	WJS		07/06/07	NONE	50653O-P-1B

APPENDIX B

PHOTOS

10-23-07 Jet West CIBP

10-23-07 Jet West Down Hole Camera

10-23-07 Key Energy Pressure Pumping Services

10-27-07 Buckeye No. 1 Cement Plugs Set

10-29-07 Excavating to cap below grade

10-29-07 Cutting away outer casings

10-29-07 All casings cut to below grade

10-31-07 Topping off outer casings with cement

10-31-07 Topped off cement curing

10-31-07 ½" plate welded to top of 18" casing

10-31-07 Buckeye No. 1 Site Backfilled

ECHO – LOG

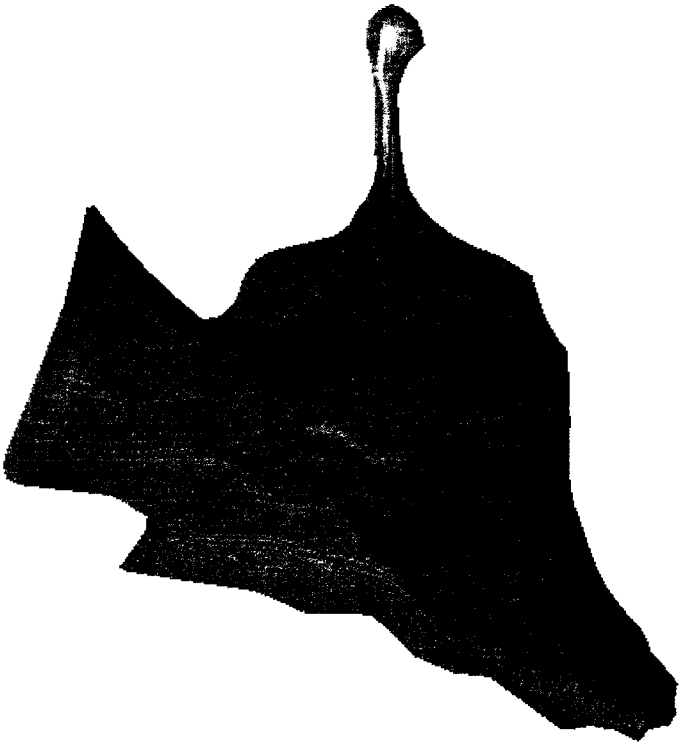
Enterprise Products

Cavern No: LPG 1

Moab, Utah

1st. SOCON Sonar Well Services Survey

07/31/2007 073052



SOCON Sonar Well Services, Inc.
11133 I-45 South, Ste. E Conroe, Texas 77302
Phone (936) 441-5801 Fax (936) 539-6847
e-mail: soconusa@socon.com

Results of the Cavern Survey

By means of Echo-Sounding

In the cavern

Cavern No: LPG 1

Date: 07/31/2007

073052

Customer:

PB Energy Services, Inc.

For Enterprise

Moab, Utah

Responsible for the survey:

Surveyor:	HL Van Metre
Leadership:	Harold Drake
Interpreter:	HL Van Metre
Control:	Richard Lawrence

Contents

Summary of results

Well details

All depths are given as:	**MD**
Datum level for all depths:	**BHF**
Shoe of the cemented 7 " -casing:	1510.0 ft
Reference depth for ECHO-LOG:	**1510.0 ft**
Depth correction:	1.0 ft
Pressure at the well head:	0.0 bar

SOCON BSF tool set down at 1525 feet.
Sonar XN02 tool used. It set down at 1525 feet, but were able
To get past tight spot. Tool would not rotate from 1526 feet to 1540 feet.

Details of survey equipment

Measuring vehicle used:	Jet West
Tools used:	XN02 – R185

General details

Number of runs:	2
Measured horizontal sections:	25
Measured tilted sections:	27
Lowest survey depth:	1640.0 ft

Maximum and minimum dimensions with ref. to the measuring axis

Reference direction: **magnetic north**

Determination out of 12 vertical sections derived from horizontally and tilted measured data at 5/15 degree intervals:

Minimum radius:	0.0 ft
Depth:	1642.0 ft
Direction:	0°
Maximum radius:	85.6 ft
Depth:	1600.0 ft
Direction:	75°
Highest point of cavern:	1506.7 ft
Horizontal distance:	1.8 ft
Direction:	60°
Lowest point of cavern:	1672.7 ft
Horizontal distance:	39.3 ft
Direction:	240°

Lowest point in the measuring axis: 1642.1 ft

Determination out of 37 horizontal sections in the depths between 1510 ft and 1671 ft at 5 degree intervals:

Maximum radius:	85.6 ft
Depth:	1600.0 ft
Direction:	75°
Maximum diameter:	123.3 ft
Depth:	1640.0 ft
Direction:	130 - 310°

Volume

Volume:	96,591Bbls
Depth range:	1510.0 ft <--> 1671.0 ft

Interpretation

Supposing a rectilinear propagation of ultrasonic waves all recorded echo travel times were converted into distances by using the subsequent speeds of sound:

5950 feet/second in brine (measured)

In the case of recording several echoes along one trace of echo signals, the representative echo signal was selected according to the level of amplitude, transmission time, and density of measured points and the shape of the cavern.

Horizontal sections

25 horizontal sections at following measured depths are included as graphical plots in this report:

1510.0 ft	1515.0 ft	1520.0 ft	1525.0 ft	1540.0 ft	1545.0 ft	1550.0 ft
1555.0 ft	1560.0 ft	1565.0 ft	1570.0 ft	1575.0 ft	1580.0 ft	1585.0 ft
1590.0 ft	1595.0 ft	1600.0 ft	1605.0 ft	1610.0 ft	1615.0 ft	1620.0 ft
1625.0 ft	1630.0 ft	1635.0 ft	1640.0 ft			

The following 7 sections are constructed:

1641.0 ft	1646.0 ft	1651.0 ft	1656.0 ft	1661.0 ft	1666.0 ft	1671.0 ft

Tilted sections

27 sections recorded with tilted echo-transducer at following measured depths are presented in the vertical sections:

10 sections of these with upwards-tilted echo-transducer:

Depth / Tilting Angle

1525.0 / 85	1610.0 / 15	1610.0 / 20	1610.0 / 25	1610.0 / 30	1610.0 / 35
1610.0 / 40	1610.0 / 45	1610.0 / 50	1640.0 / 55		

17 sections of these with downwards-tilted echo-transducer:

Depth / Tilting Angle

1640.0 / 5	1640.0 / 10	1640.0 / 15	1640.0 / 20	1640.0 / 25	1640.0 / 30
1640.0 / 35	1640.0 / 40	1640.0 / 45	1640.0 / 50	1640.0 / 55	1640.0 / 60
1640.0 / 65	1640.0 / 70	1640.0 / 75	1640.0 / 80	1640.0 / 85	

Vertical sections

The shape of the cavern was determined by interpretation of all horizontally and tilted measured data and is presented by 12 vertical sections in this report.

Maximum plots (top view)

The maximum plot presents the largest extension of the cavern in a top view. The first picture shows the areas of all horizontal sections and the area resulting out of the vertical sections (hatched). The resulting total area is shown in the second picture (cross hatching) together with the largest single area.

In both pictures the total centre of gravity of the cavern is shown with its distance and its direction referring to the measuring axis.
The total centre of gravity is derived out of the envelope, which is the connection line of the largest cavern extension in every direction

Perspective views

Several perspective drawings are included in this report to give a quick review of detailed relations.

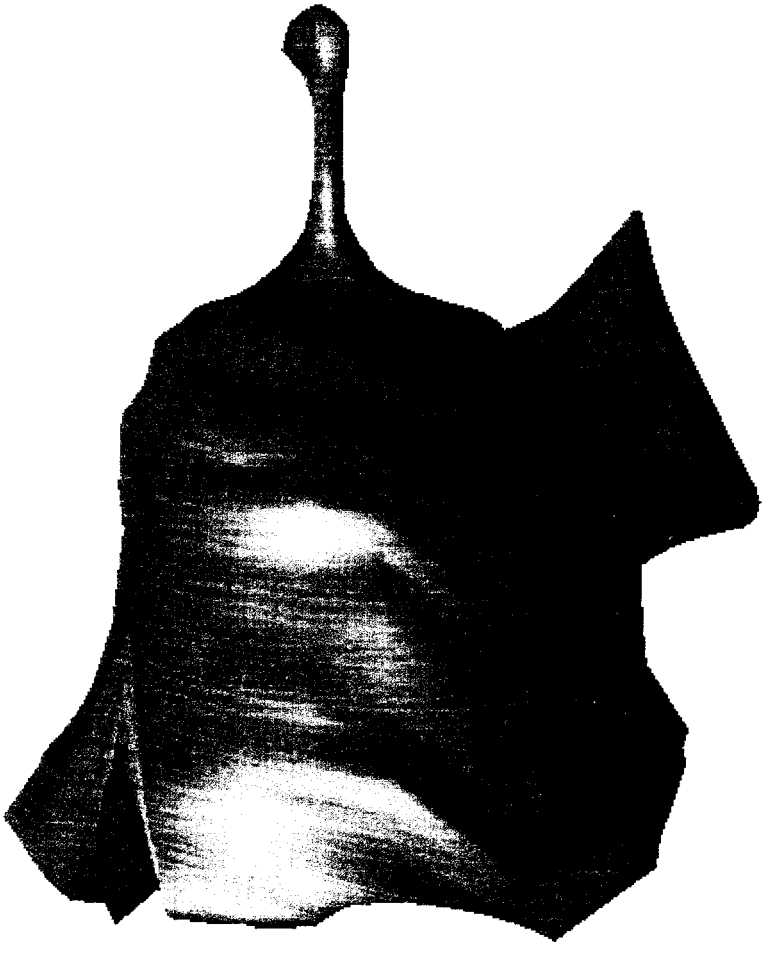
Pockets in the cavern wall

Pockets in the cavern wall, which have been identified by the tilted echo-transducer, were transferred from the vertical sections to the respective horizontal sections.
The resulting additional areas have been added to the calculated areas.

LEGEND

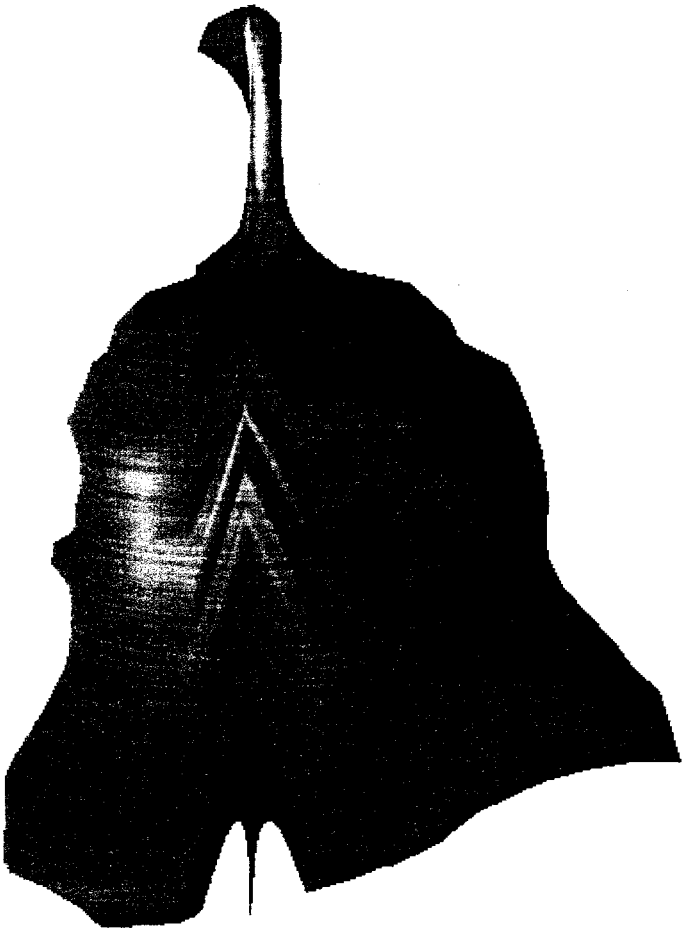
■	Measured point recorded with horizontal adjusted ultrasonic transducer
○	Measured point recorded with tilted or vertical orientated ultrasonic transducer
▲	Interpolated point derived from the vertical sections
——	Connection line between two measured points in order to calculate the volume
- -	Assumed connection line (in areas which are not sufficiently covered by measured points)
N	Magnetic north determined with compass inside the tool (Magnetic compass in areas without tubing) (Fibre gyro compass in areas with tubing)
(N)	Assumed north direction (for sections in magnetic disturbed surroundings without fibre gyro compass)
a	Longest extension in section (Without considering of hidden leached pockets)
b	Longest extension in section perpendicular to a (Without considering of hidden leached pockets)
a/b	Ratio of longest extensions in section which are perpendicular to each other
(xx m²)	Area in actual section resulting from hidden leached pockets
r~	Average radius
🗀 021835 29.04.2002	Job number and survey date

Cavern No: LPG 1 073052 07/31/2007



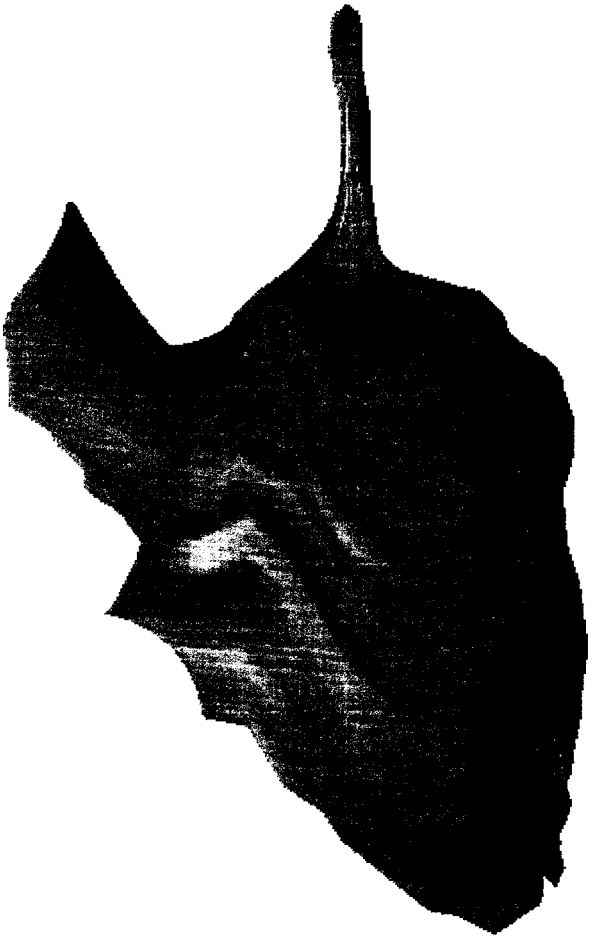
Cavern No: LPG 1 --> 0° <--

Cavern No: LPG 1 073052 07/31/2007



Cavern No: LPG 1 --> 60° <--

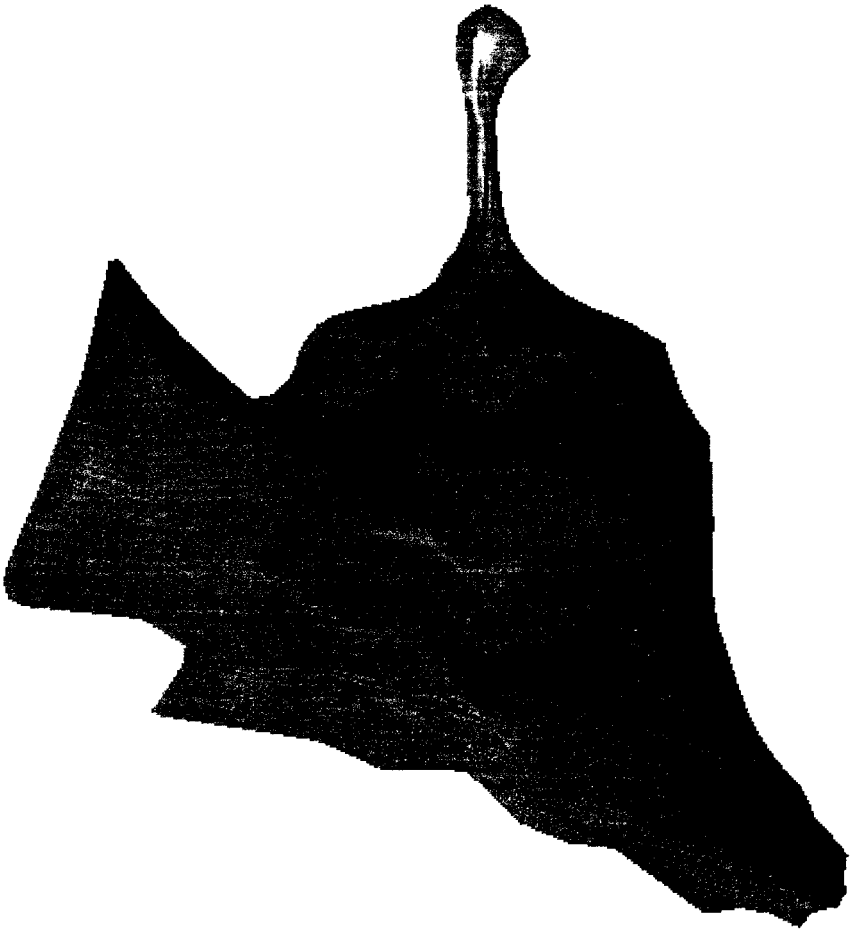
Cavern No: LPG 1 073052 07/31/2007



Cavern No: LPG 1 --> 120° <--

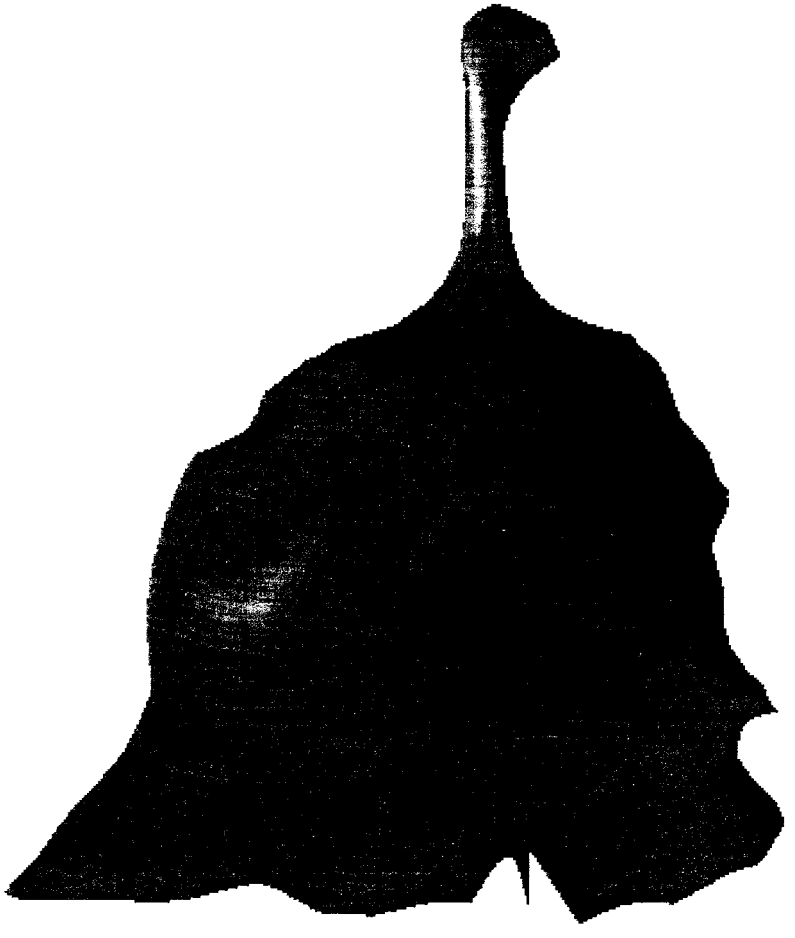
SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 073052 07/31/2007



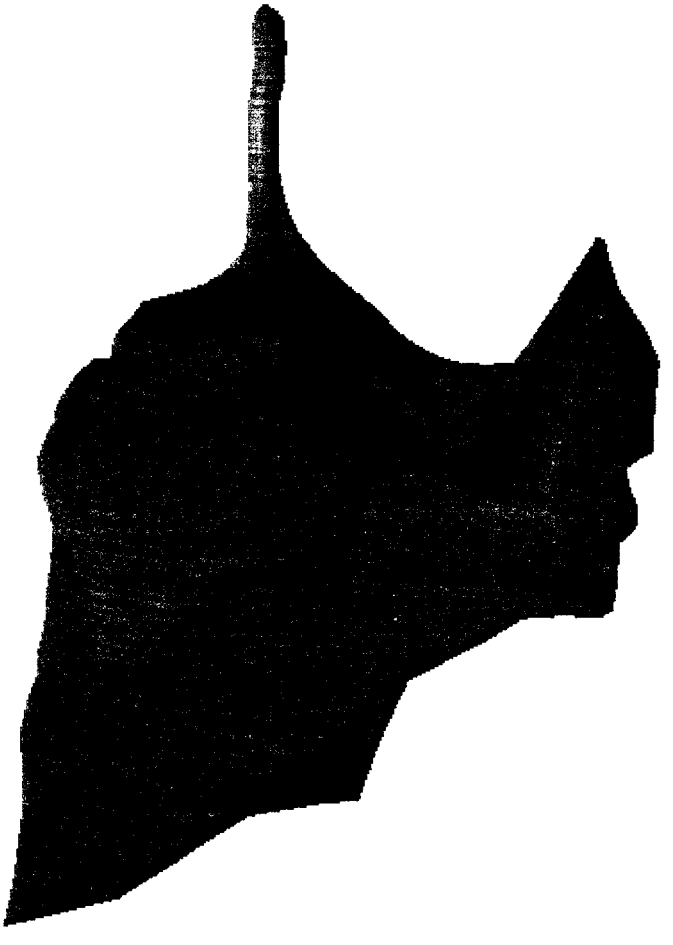
Cavern No: LPG 1 --> 180° <--

Cavern No: LPG 1 073052 07/31/2007



Cavern No: LPG 1 --> 240° <--

Cavern No: LPG 1 073052 07/31/2007

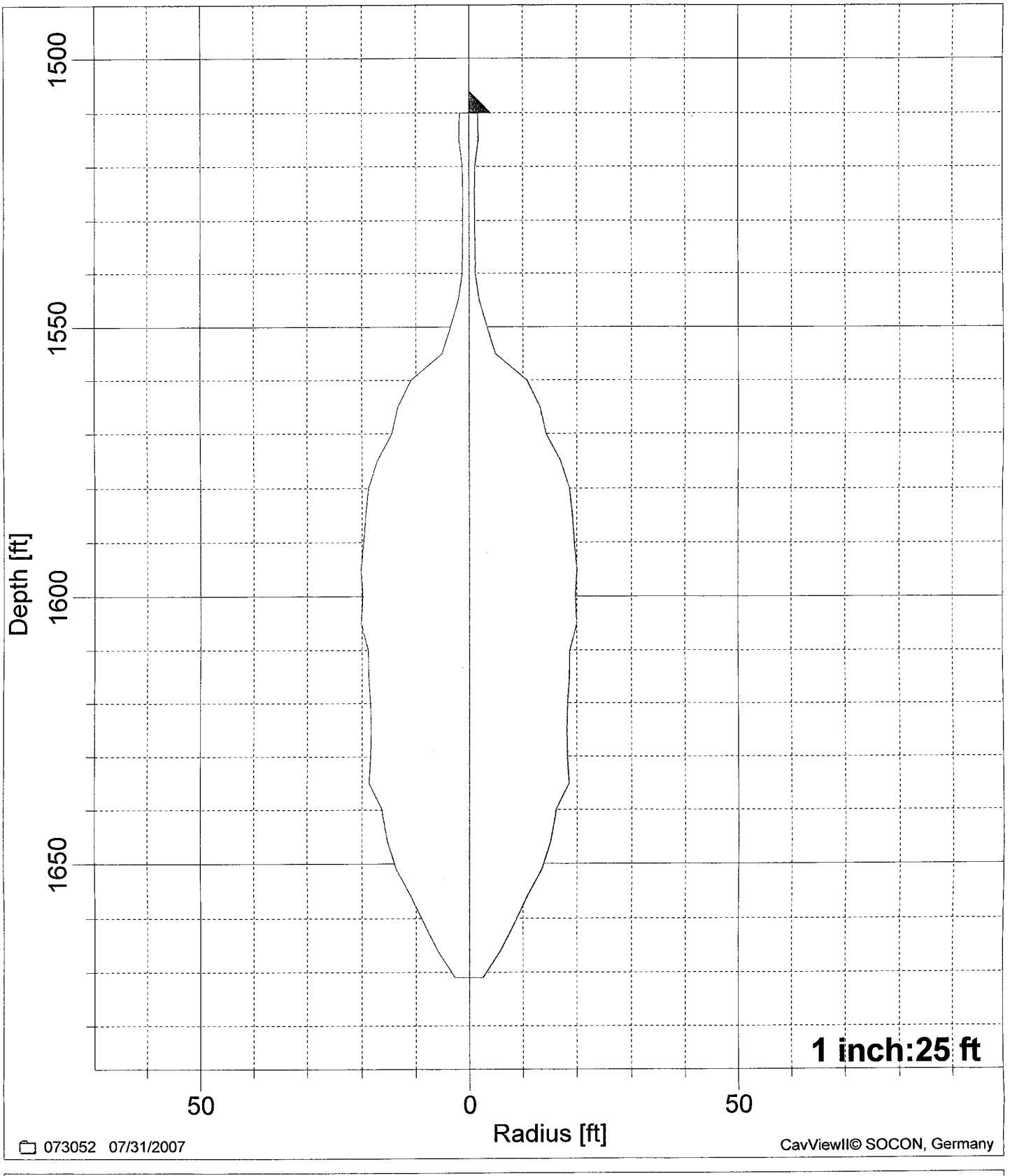


Cavern No: LPG 1 --> 300° <--

SOCON Sonar Well Services

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 **AVERAGE RADIUS** **07/31/2007**



073052 07/31/2007

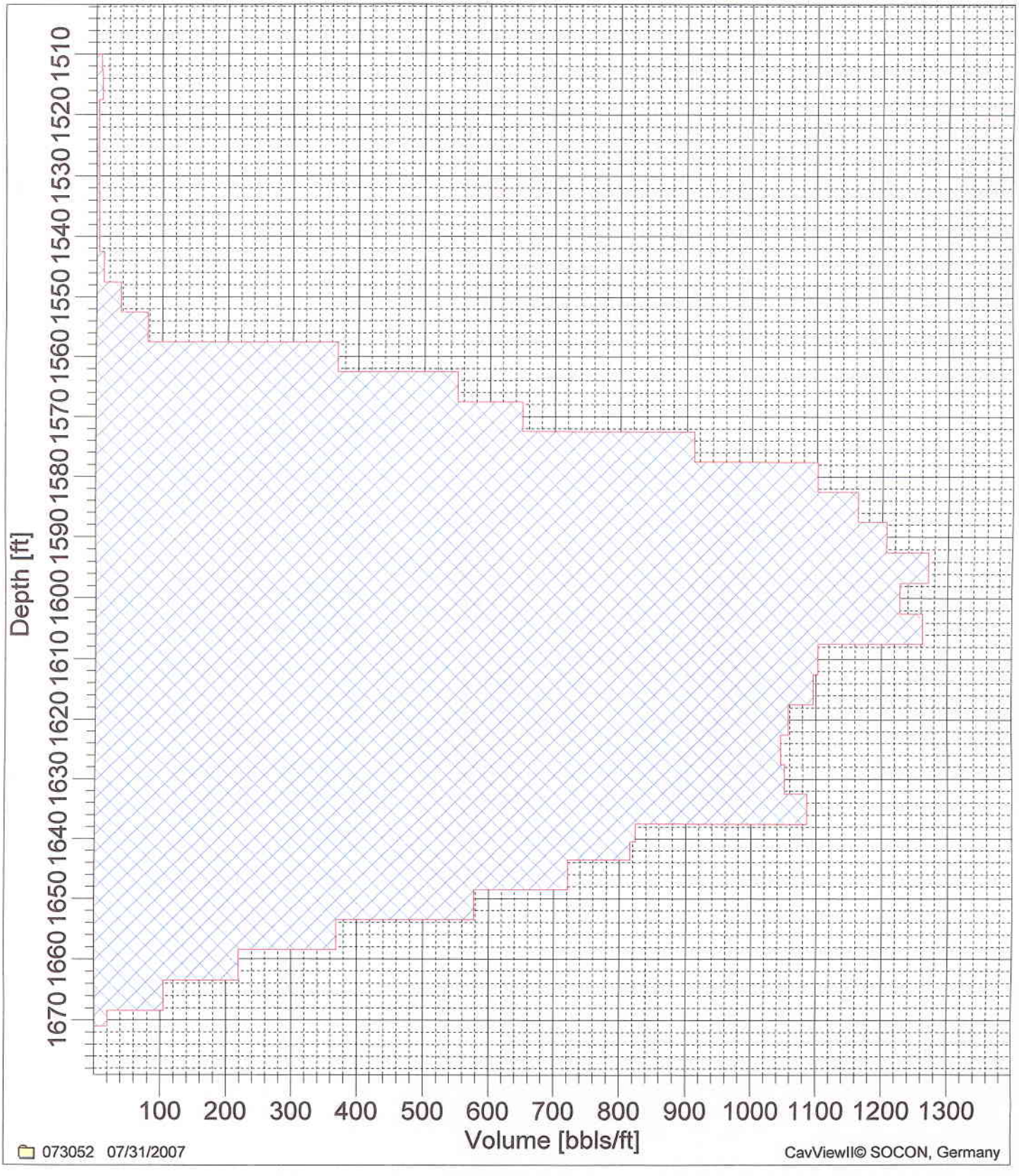
CavViewII© SOCON, Germany

7" : 1510.0 ft

Average radius (07/31/2007)

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 — PARTIAL VOLUME — 07/31/2007



Partial volume

SOCON Sonar Well Services, Inc.

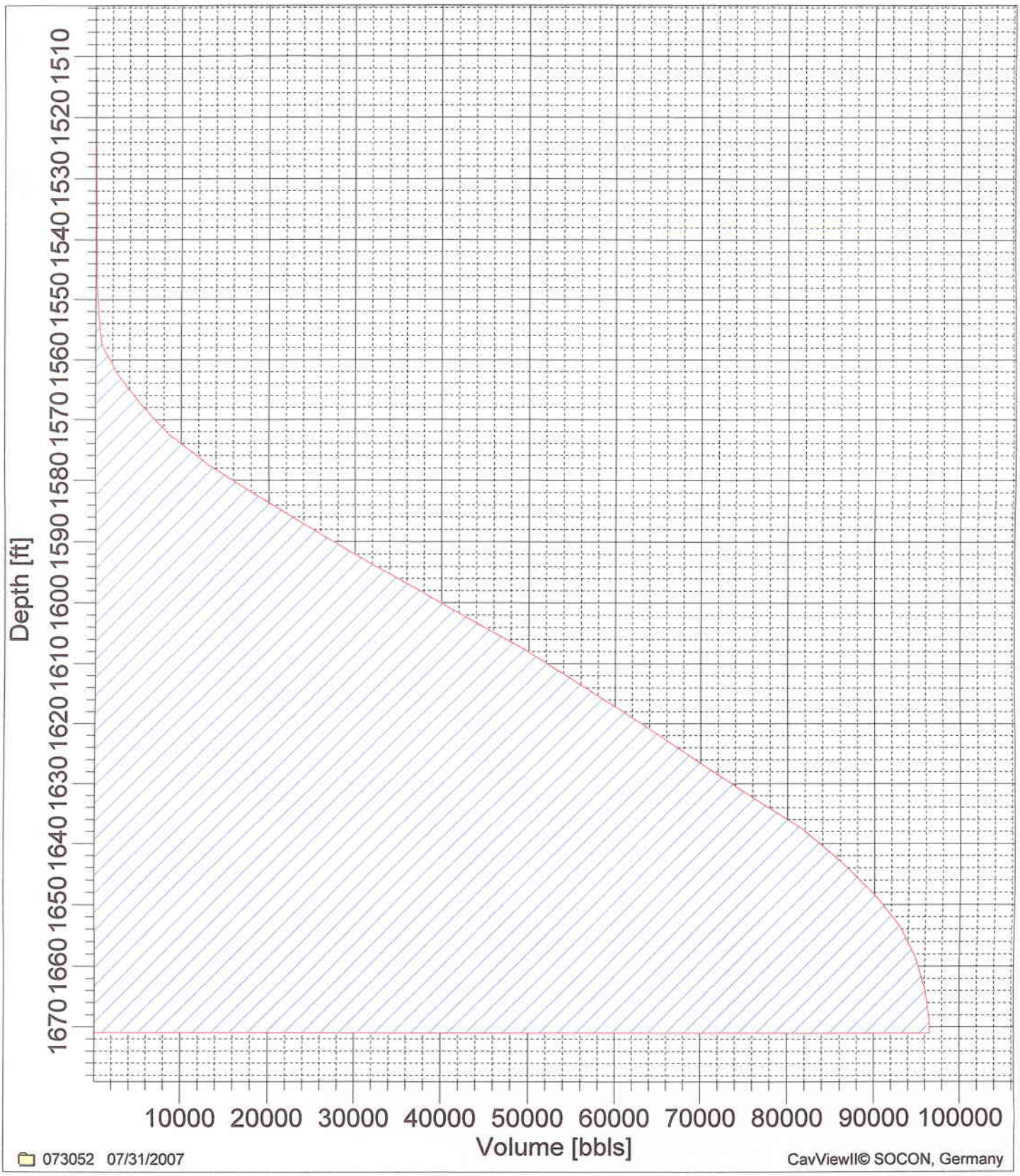
Volume list

Cavern No: LPG 1 073052 07/31/2007

Depth [ft]	Radius [ft]	Area [ft²]	Depth range [ft]		Volume [bbls]	
			from	to	partial	total
1510.0	4.1	53	1510.0	1512.5	24	24
1515.0	4.3	57	1512.5	1517.5	51	74
1520.0	2.9	26	1517.5	1522.5	23	98
1525.0	2.7	23	1522.5	1532.5	41	138
1540.0	2.9	27	1532.5	1542.5	48	186
1545.0	4.7	70	1542.5	1547.5	62	249
1550.0	8.2	212	1547.5	1552.5	189	438
1555.0	11.8	441	1552.5	1557.5	392	830
1560.0	25.7	2075	1557.5	1562.5	1848	2678
1565.0	31.4	3095	1562.5	1567.5	2756	5434
1570.0	34.1	3652	1567.5	1572.5	3252	8686
1575.0	40.4	5117	1572.5	1577.5	4557	13243
1580.0	44.4	6183	1577.5	1582.5	5506	18748
1585.0	45.6	6534	1582.5	1587.5	5818	24566
1590.0	46.4	6778	1587.5	1592.5	6036	30602
1595.0	47.7	7139	1592.5	1597.5	6357	36959
1600.0	46.9	6899	1597.5	1602.5	6144	43103
1605.0	47.5	7092	1602.5	1607.5	6316	49418
1610.0	44.4	6197	1607.5	1612.5	5519	54937
1615.0	44.3	6156	1612.5	1617.5	5482	60419
1620.0	43.5	5941	1617.5	1622.5	5291	65710
1625.0	43.2	5874	1622.5	1627.5	5231	70941
1630.0	43.4	5907	1627.5	1632.5	5260	76201
1635.0	44.1	6100	1632.5	1637.5	5432	81633
1640.0	38.4	4628	1637.5	1640.5	2473	84105
1641.0	38.2	4581	1640.5	1643.5	2448	86553
1646.0	35.9	4052	1643.5	1648.5	3609	90162
1651.0	32.2	3249	1648.5	1653.5	2893	93054
1656.0	25.7	2078	1653.5	1658.5	1851	94905
1661.0	19.9	1240	1658.5	1663.5	1104	96009
1666.0	13.8	595	1663.5	1668.5	529	96539
1671.0	6.1	117	1668.5	1671.0	52	96591

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 **TOTAL VOLUME** **07/31/2007**



Total volume = 96591.1 bbls

SOCON Sonar Well Services, Inc.

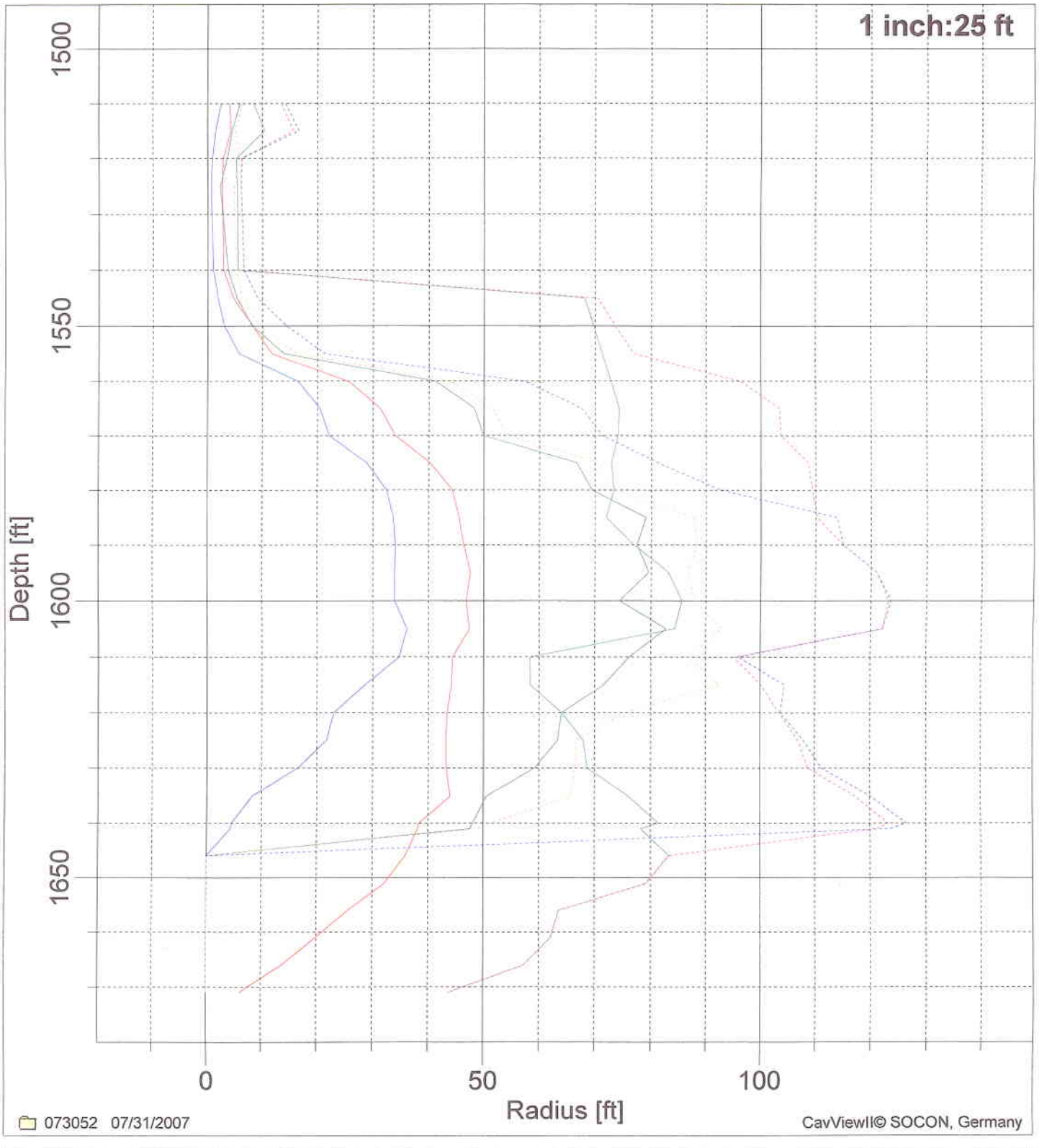
Table of volumes (foot by foot)

Job-No.: 073052, Name: Cavern No: LPG 1, Date: 07/31/2007

depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]
1510	0	1511	9	1512	19	1513	29	1514	39
1515	49	1516	59	1517	69	1518	77	1519	81
1520	86	1521	91	1522	96	1523	100	1524	104
1525	108	1526	112	1527	116	1528	120	1529	124
1530	128	1531	132	1532	136	1533	141	1534	146
1535	150	1536	155	1537	160	1538	165	1539	170
1540	174	1541	179	1542	184	1543	193	1544	205
1545	218	1546	230	1547	242	1548	268	1549	305
1550	343	1551	381	1552	419	1553	477	1554	556
1555	634	1556	712	1557	791	1558	1015	1559	1385
1560	1754	1561	2124	1562	2493	1563	2954	1564	3505
1565	4056	1566	4607	1567	5158	1568	5759	1569	6409
1570	7060	1571	7710	1572	8361	1573	9141	1574	10053
1575	10964	1576	11875	1577	12787	1578	13793	1579	14894
1580	15995	1581	17096	1582	18198	1583	19330	1584	20494
1585	21657	1586	22821	1587	23984	1588	25170	1589	26377
1590	27584	1591	28791	1592	29998	1593	31238	1594	32509
1595	33780	1596	35052	1597	36323	1598	37573	1599	38802
1600	40031	1601	41260	1602	42488	1603	43734	1604	44997
1605	46261	1606	47524	1607	48787	1608	49970	1609	51074
1610	52178	1611	53281	1612	54385	1613	55485	1614	56582
1615	57678	1616	58774	1617	59871	1618	60948	1619	62006
1620	63064	1621	64122	1622	65181	1623	66233	1624	67279
1625	68325	1626	69371	1627	70417	1628	71467	1629	72519
1630	73571	1631	74623	1632	75675	1633	76744	1634	77830
1635	78917	1636	80003	1637	81090	1638	82045	1639	82869
1640	83693	1641	84513	1642	85329	1643	86145	1644	86914
1645	87636	1646	88357	1647	89079	1648	89801	1649	90451
1650	91029	1651	91608	1652	92187	1653	92765	1654	93239
1655	93610	1656	93980	1657	94350	1658	94720	1659	95015
1660	95236	1661	95457	1662	95678	1663	95899	1664	96062
1665	96168	1666	96274	1667	96380	1668	96486	1669	96549
1670	96570	1671	96591						

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 — RADII / DIAMETERS — 07/31/2007



Average radius
Minimum radius
Maximum radius
Minimum diameter
Maximum diameter
Largest extension
Largest perpendicular extension

SOCON Sonar Well Services, Inc.

Table of radii and diameters

Cavern No: LPG 1 073052 07/31/2007

Depth	Radius [MIN]		Radius [MAX]		Diameter [MIN]		[MAX]	
[ft]	[ft]	[°]	[ft]	[°]	[ft]	[°]	[ft]	[°]
1510.0	2.5	212	8.4	315	5.9	17 <-> 197	13.5	135 <-> 315
1515.0	1.5	257	10.4	310	4.5	35 <-> 215	15.7	130 <-> 310
1520.0	0.9	292	5.2	115	3.6	27 <-> 207	6.2	120 <-> 300
1525.0	0.6	260	5.4	140	2.3	37 <-> 217	6.1	140 <-> 320
1540.0	1.0	320	5.5	135	3.7	50 <-> 230	6.6	135 <-> 315
1545.0	1.9	272	68.2	60	5.4	77 <-> 257	70.6	60 <-> 240
1550.0	3.0	325	69.7	60	8.1	20 <-> 200	73.7	60 <-> 240
1555.0	5.8	237	71.3	60	13.9	30 <-> 210	77.1	60 <-> 240
1560.0	16.5	15	72.8	60	41.2	6 <-> 186	96.3	60 <-> 240
1565.0	20.5	10	74.3	60	48.3	35 <-> 215	103.4	60 <-> 240
1570.0	22.2	7	74.1	60	49.9	25 <-> 205	103.7	60 <-> 240
1575.0	28.9	330	72.9	60	66.8	53 <-> 233	108.7	45 <-> 225
1580.0	32.5	325	73.4	60	69.5	61 <-> 241	109.4	45 <-> 225
1585.0	33.7	305	72.0	40	79.1	77 <-> 257	110.3	45 <-> 225
1590.0	34.1	325	77.0	70	77.5	20 <-> 200	115.0	70 <-> 250
1595.0	34.0	312	83.1	75	79.6	10 <-> 190	121.1	75 <-> 255
1600.0	34.0	312	85.6	75	74.4	15 <-> 195	123.2	75 <-> 255
1605.0	36.2	332	84.4	75	82.8	15 <-> 195	122.2	75 <-> 255
1610.0	34.8	320	58.4	135	76.2	16 <-> 196	95.2	65 <-> 245
1615.0	28.7	15	58.5	135	71.6	20 <-> 200	100.2	175 <-> 355
1620.0	23.1	35	64.2	115	64.1	35 <-> 215	103.5	115 <-> 295
1625.0	21.8	40	68.0	125	63.4	41 <-> 221	107.0	125 <-> 305
1630.0	16.6	25	68.7	130	59.3	36 <-> 216	108.8	120 <-> 300
1635.0	8.3	40	76.1	120	50.6	46 <-> 226	117.4	120 <-> 300
1640.0	4.5	65	81.5	130	48.1	55 <-> 235	123.3	130 <-> 310
1641.0	4.3	45	78.2	135	47.6	39 <-> 219	121.1	135 <-> 315
1646.0	0.0	0	83.4	135	0.0	1 <-> 181	83.4	135 <-> 315
1651.0	0.0	0	79.3	150	0.0	1 <-> 181	79.3	150 <-> 330
1656.0	0.0	0	63.7	285	0.0	1 <-> 181	63.7	105 <-> 285
1661.0	0.0	0	62.2	285	0.0	1 <-> 181	62.2	105 <-> 285
1666.0	0.0	0	57.3	270	0.0	0 <-> 180	57.3	90 <-> 270
1671.0	0.0	0	43.7	240	0.0	0 <-> 180	43.7	60 <-> 240

SOCON Sonar Well Services, Inc.

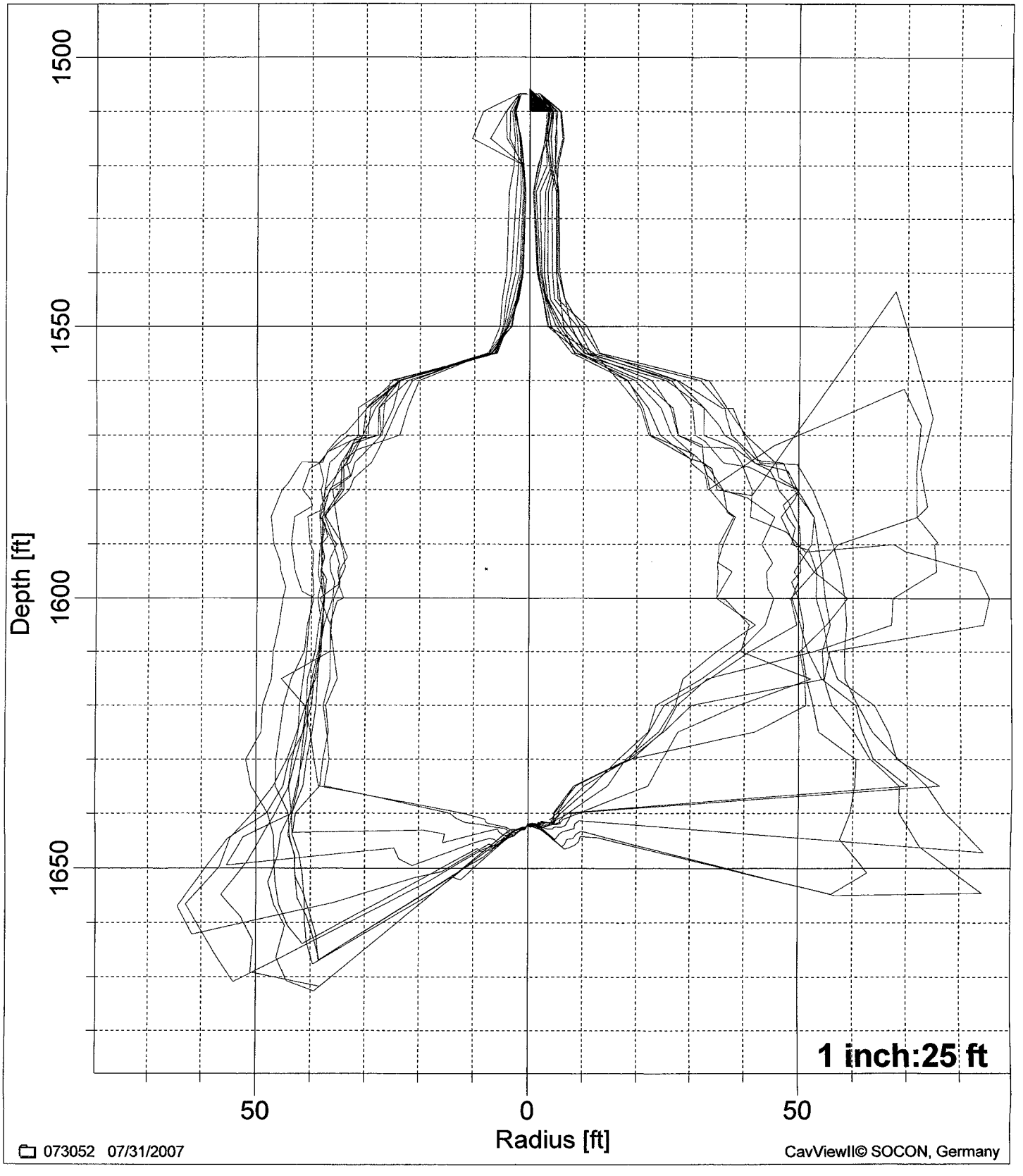
Table of radii in N-E-S-W-NE-SE-SW-NW presentation

Cavern No: LPG 1 073052 07/31/2007

Depth [ft]	<R> [ft]	N [ft]	E [ft]	S [ft]	W [ft]	NE [ft]	SE [ft]	SW [ft]	NW [ft]
1510.0	4.1	3.3	4.8	3.1	2.8	3.8	5.1	2.5	8.4
1515.0	4.3	3.3	5.0	2.6	1.5	3.0	4.7	1.6	10.4
1520.0	2.9	1.5	4.7	2.8	1.0	3.2	4.7	1.4	1.0
1525.0	2.7	0.7	3.4	3.7	0.7	1.2	5.3	1.1	0.7
1540.0	2.9	1.4	3.3	4.1	1.1	2.0	5.5	1.8	1.1
1545.0	4.7	2.5	3.8	4.9	1.9	3.0	6.5	2.9	2.2
1550.0	8.2	3.3	7.1	5.3	3.8	4.9	9.4	4.2	3.2
1555.0	11.8	9.5	10.8	7.3	7.6	8.5	12.7	6.0	6.9
1560.0	25.7	18.3	26.4	23.4	23.6	19.6	27.6	23.6	22.1
1565.0	31.4	21.1	30.4	29.7	27.6	71.1	35.9	24.9	27.5
1570.0	34.1	22.6	30.9	34.5	27.7	72.5	40.0	27.4	27.1
1575.0	40.4	32.3	36.2	41.9	33.6	72.0	42.9	36.7	32.0
1580.0	44.4	33.7	49.9	45.4	37.5	71.9	52.5	37.5	36.1
1585.0	45.6	38.4	46.8	47.4	37.9	72.0	54.6	38.3	35.4
1590.0	46.4	36.2	49.2	46.9	38.1	57.3	56.3	38.3	34.5
1595.0	47.7	35.3	52.8	45.6	38.1	52.9	57.7	38.7	34.0
1600.0	46.9	35.0	59.0	45.2	37.7	48.6	58.5	37.7	34.0
1605.0	47.5	41.0	55.1	45.9	38.0	49.6	58.8	38.6	36.5
1610.0	44.4	39.4	50.2	46.9	38.1	41.1	58.4	39.2	35.8
1615.0	44.3	52.2	51.1	47.2	39.1	33.7	58.5	40.6	35.1
1620.0	43.5	39.0	51.3	48.8	40.9	25.2	60.9	40.8	37.2
1625.0	43.2	27.8	42.0	49.0	42.5	22.4	63.6	41.2	36.7
1630.0	43.4	24.9	18.8	51.8	44.3	18.6	68.5	41.7	37.7
1635.0	44.1	22.2	10.3	50.8	46.8	8.4	73.7	42.2	38.2
1640.0	38.4	9.4	5.5	47.8	50.5	5.4	77.2	43.3	42.7
1641.0	38.2	6.9	5.2	47.5	51.4	4.3	78.2	43.5	42.8
1646.0	35.9	0.0	0.0	46.7	55.2	0.0	83.4	43.4	0.0
1651.0	32.2	0.0	0.0	46.5	57.8	0.0	0.0	42.8	0.0
1656.0	25.7	0.0	0.0	45.9	62.3	0.0	0.0	41.1	0.0
1661.0	19.9	0.0	0.0	43.8	60.2	0.0	0.0	40.9	0.0
1666.0	13.8	0.0	0.0	0.0	57.3	0.0	0.0	40.0	0.0
1671.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 **MAXPLOT** **07/31/2007**

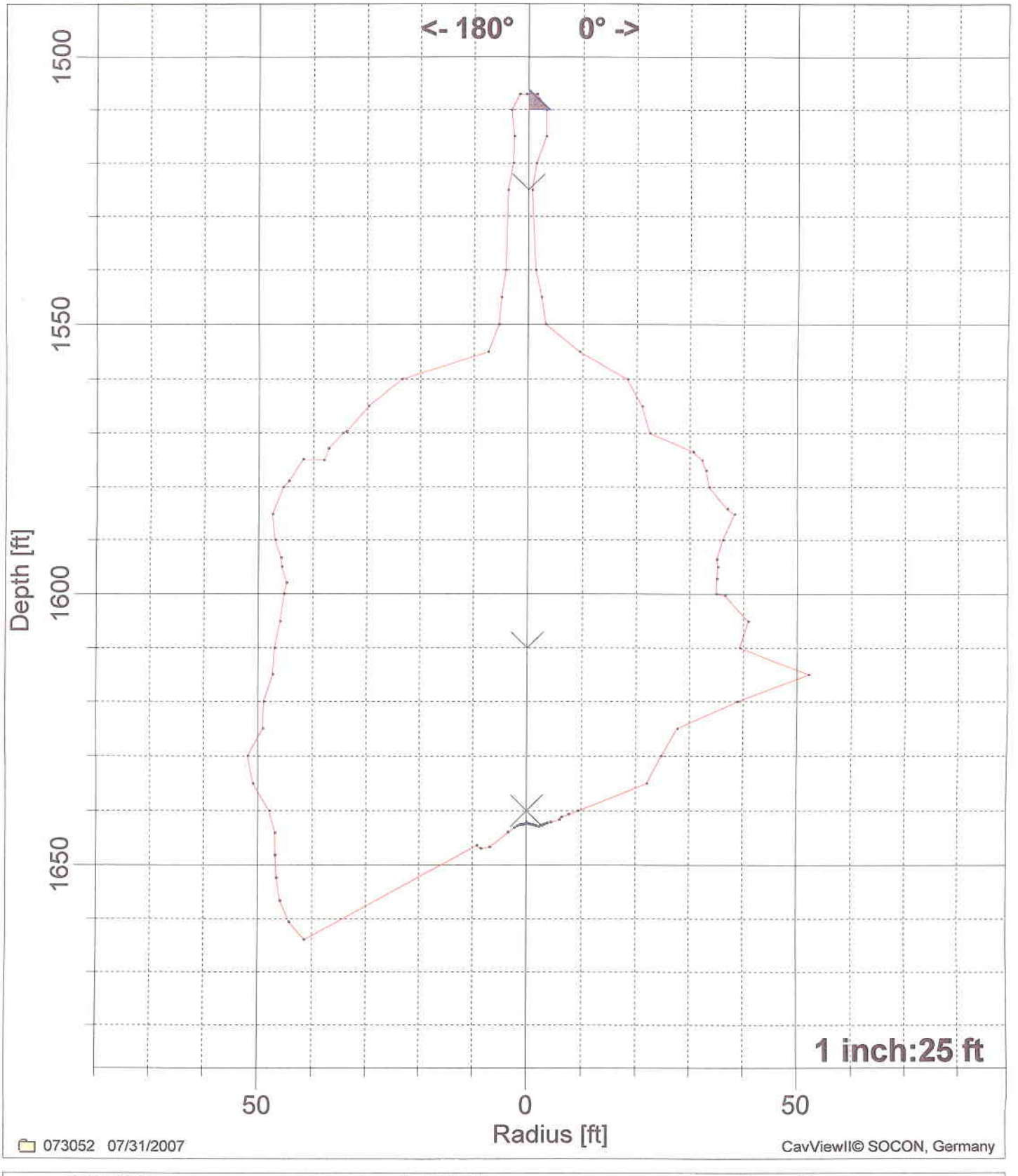


7" : 1510.0 ft

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

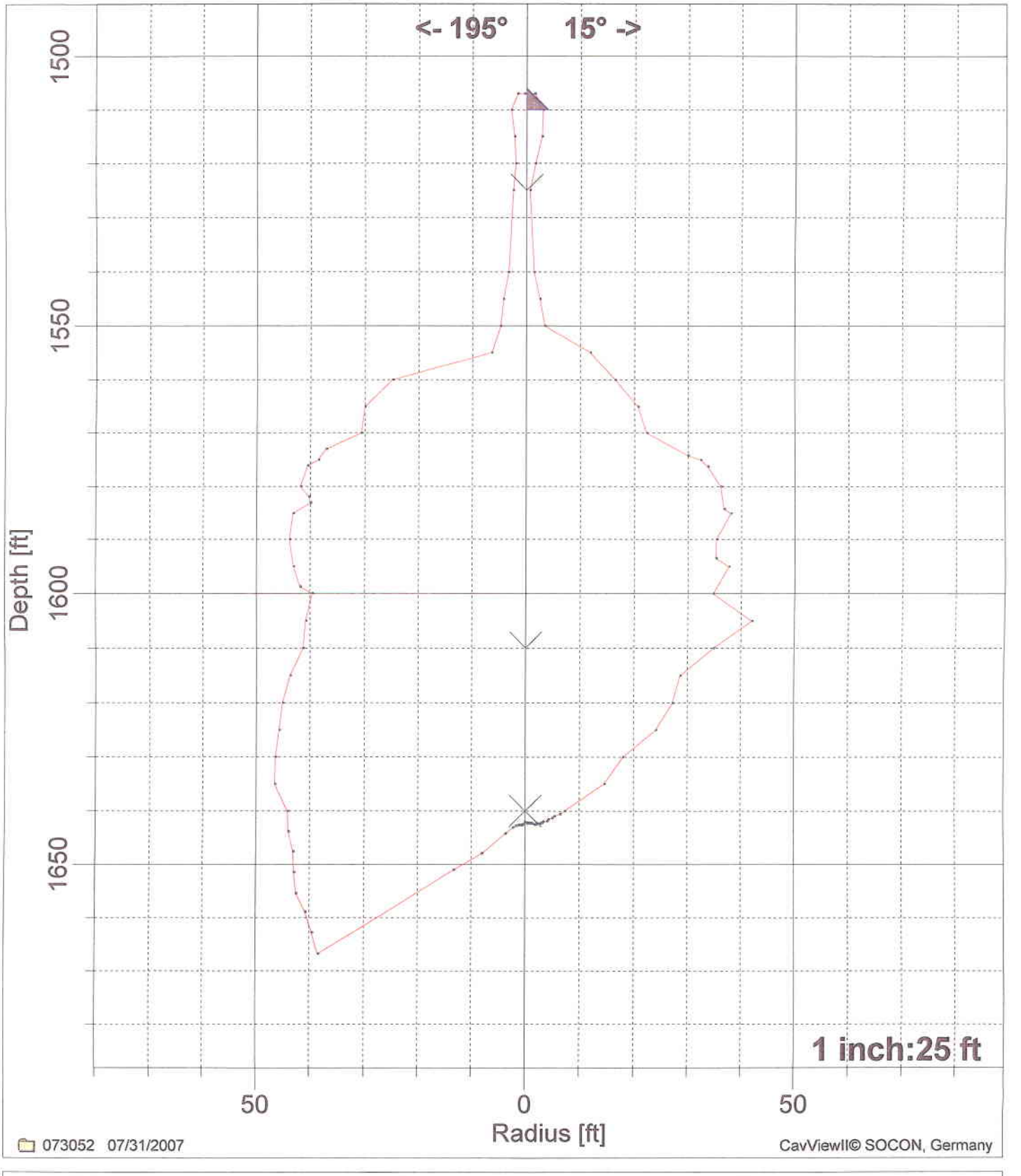


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

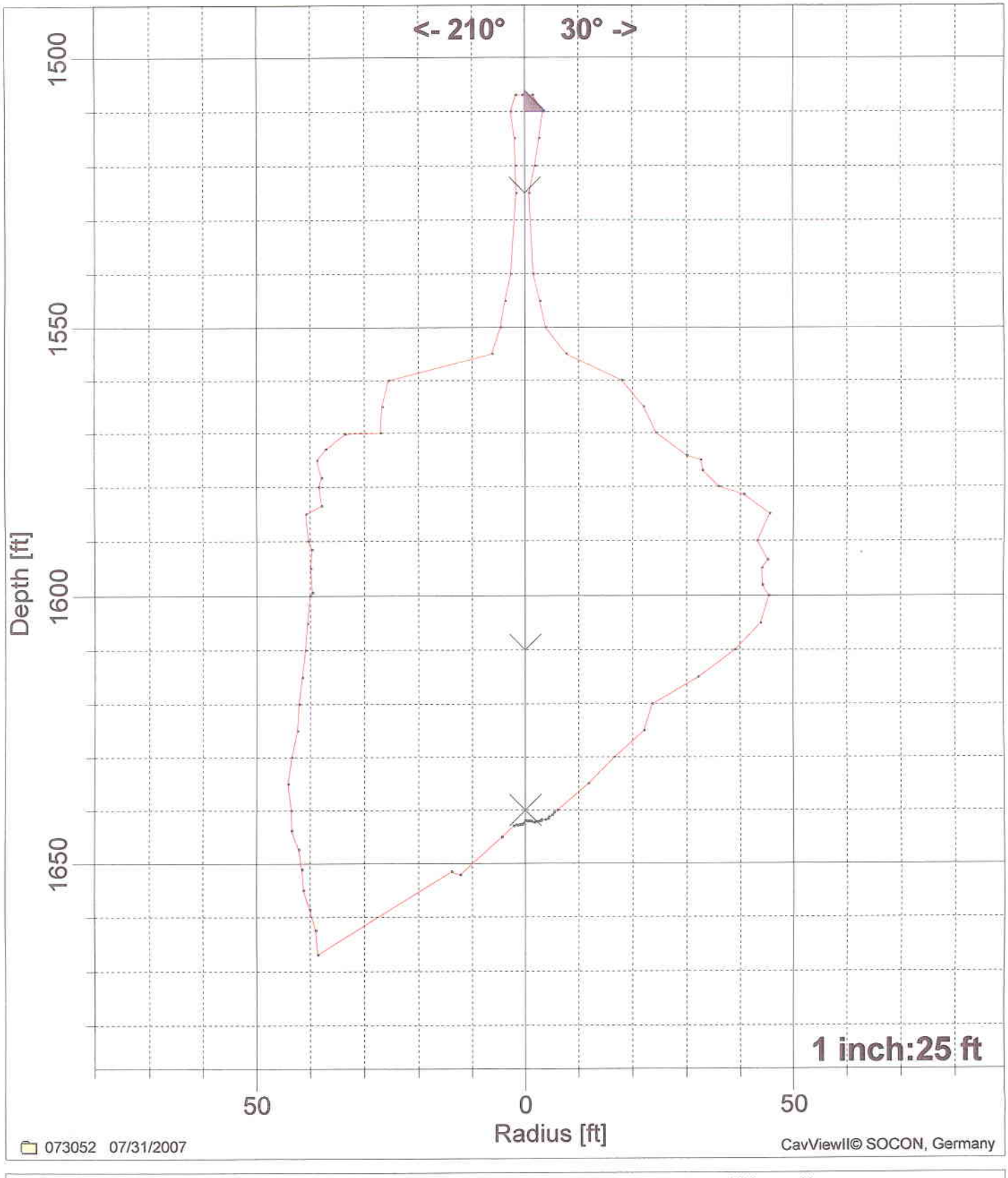


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

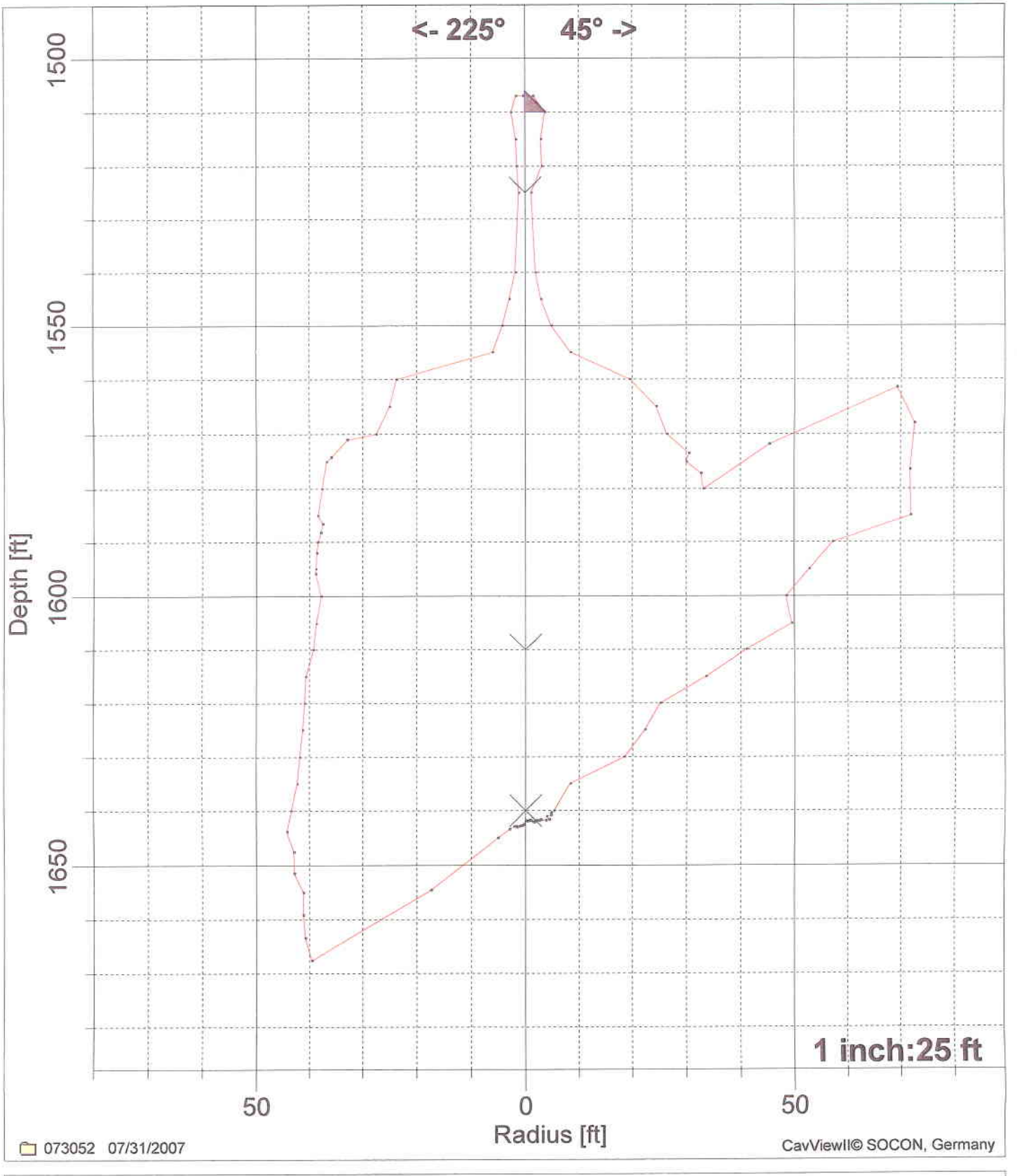


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

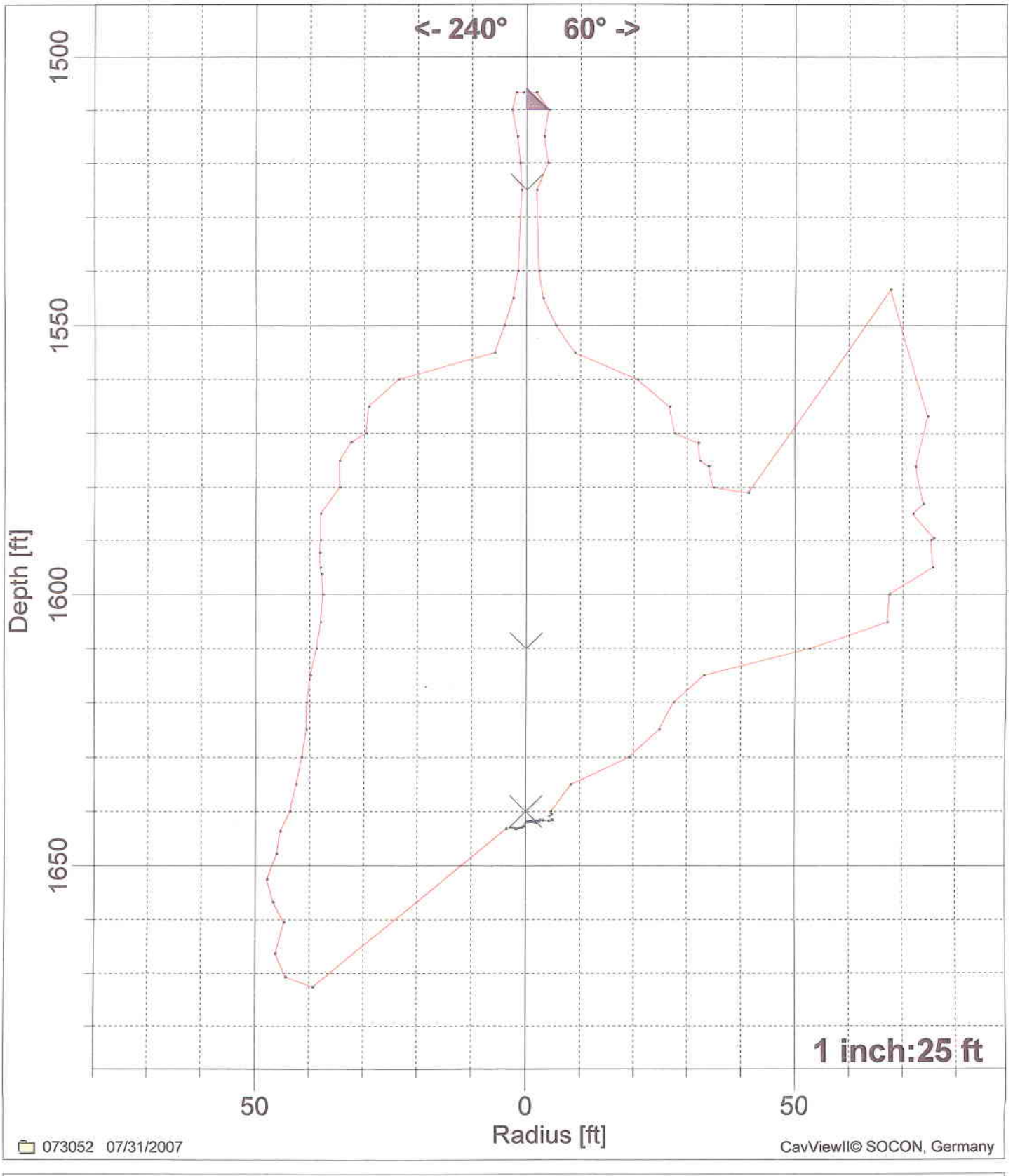


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

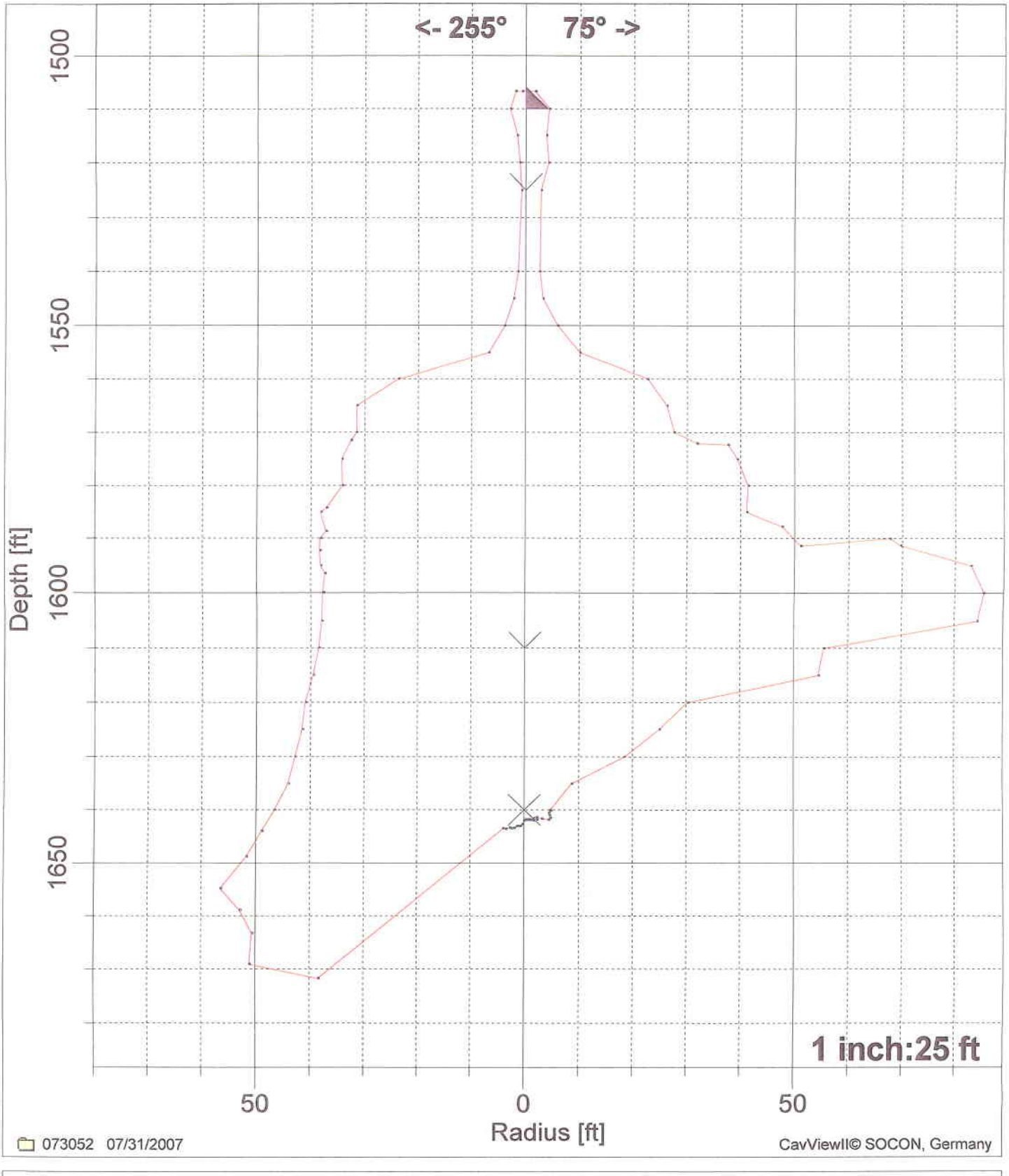


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

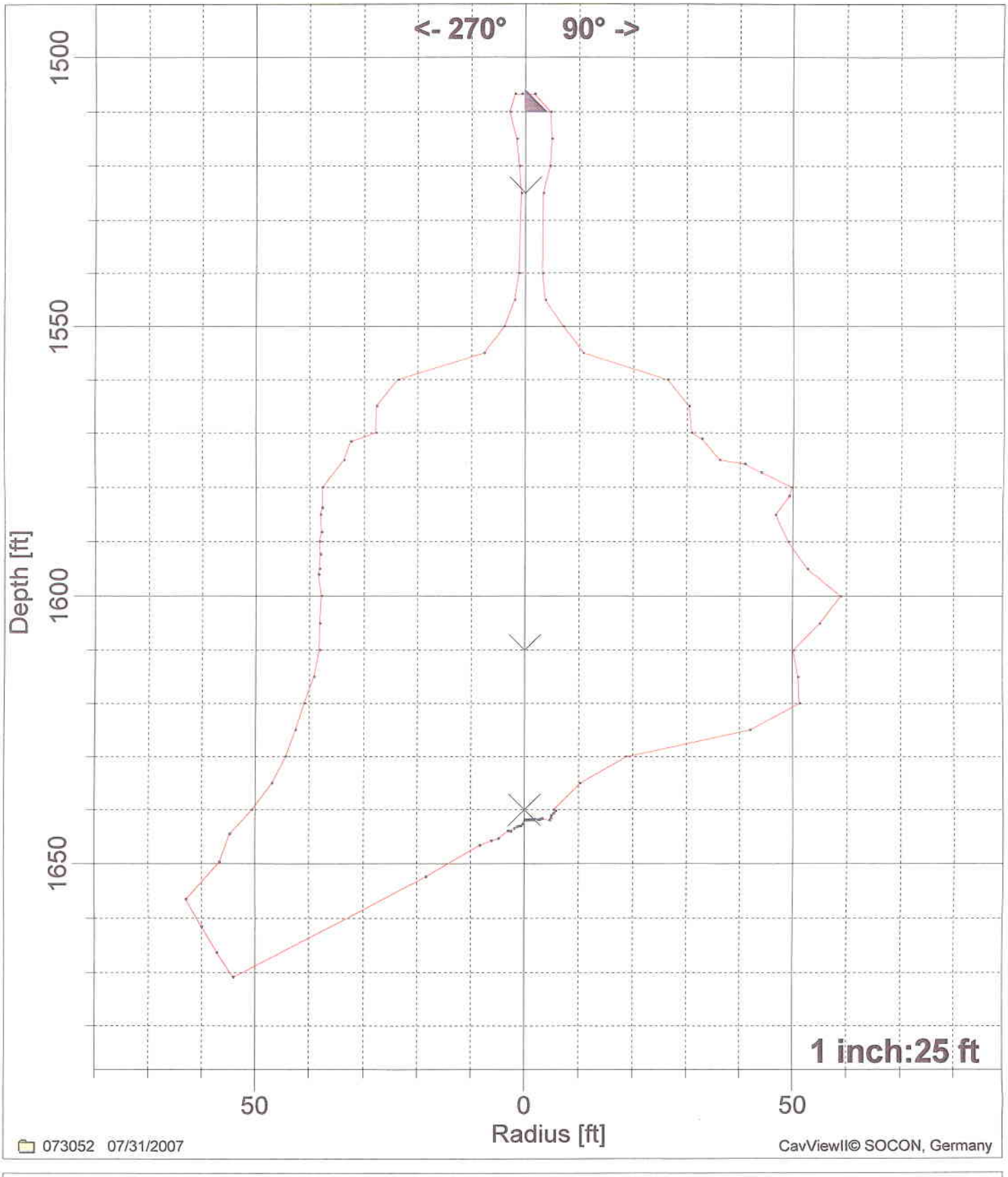


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

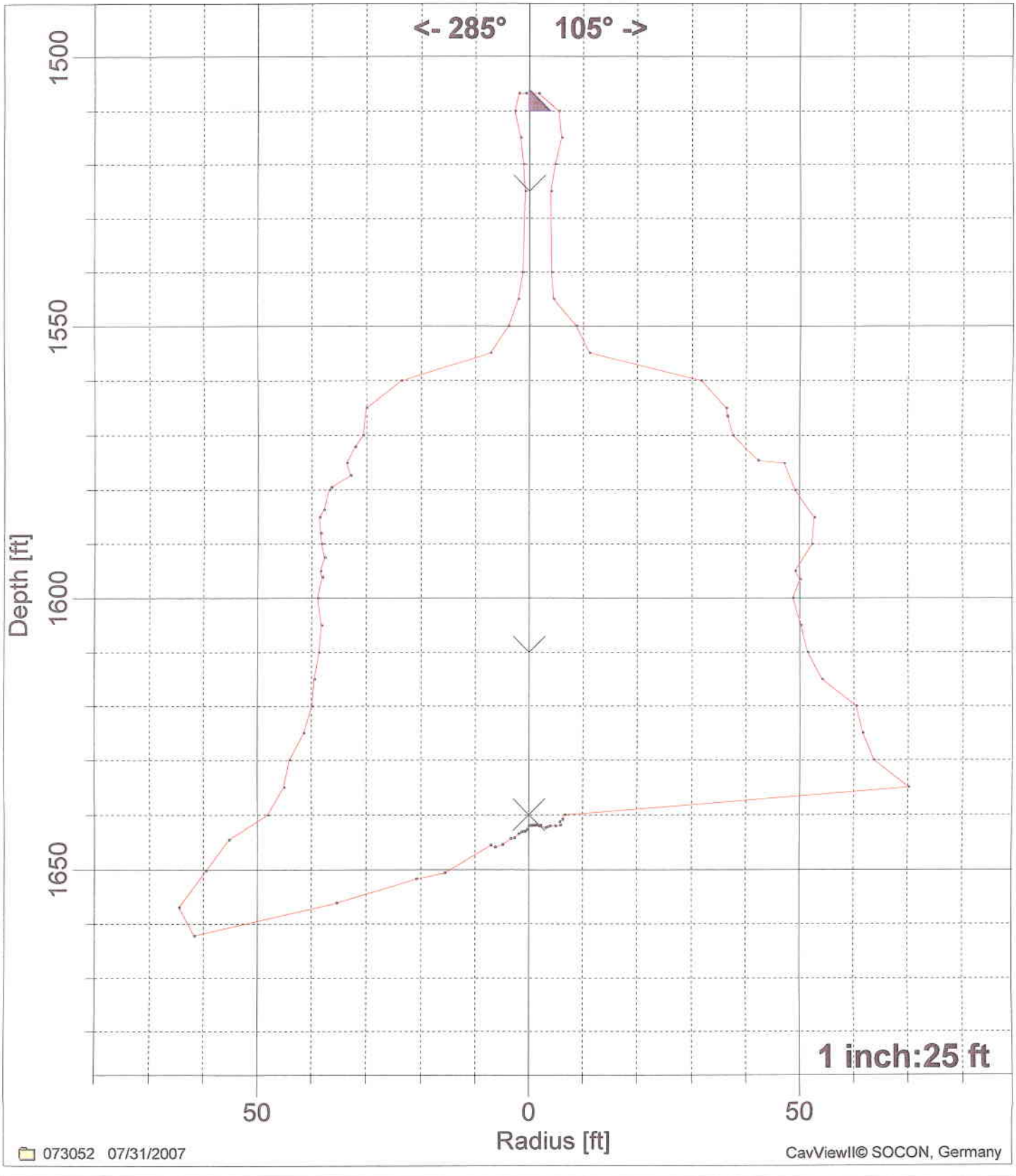


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

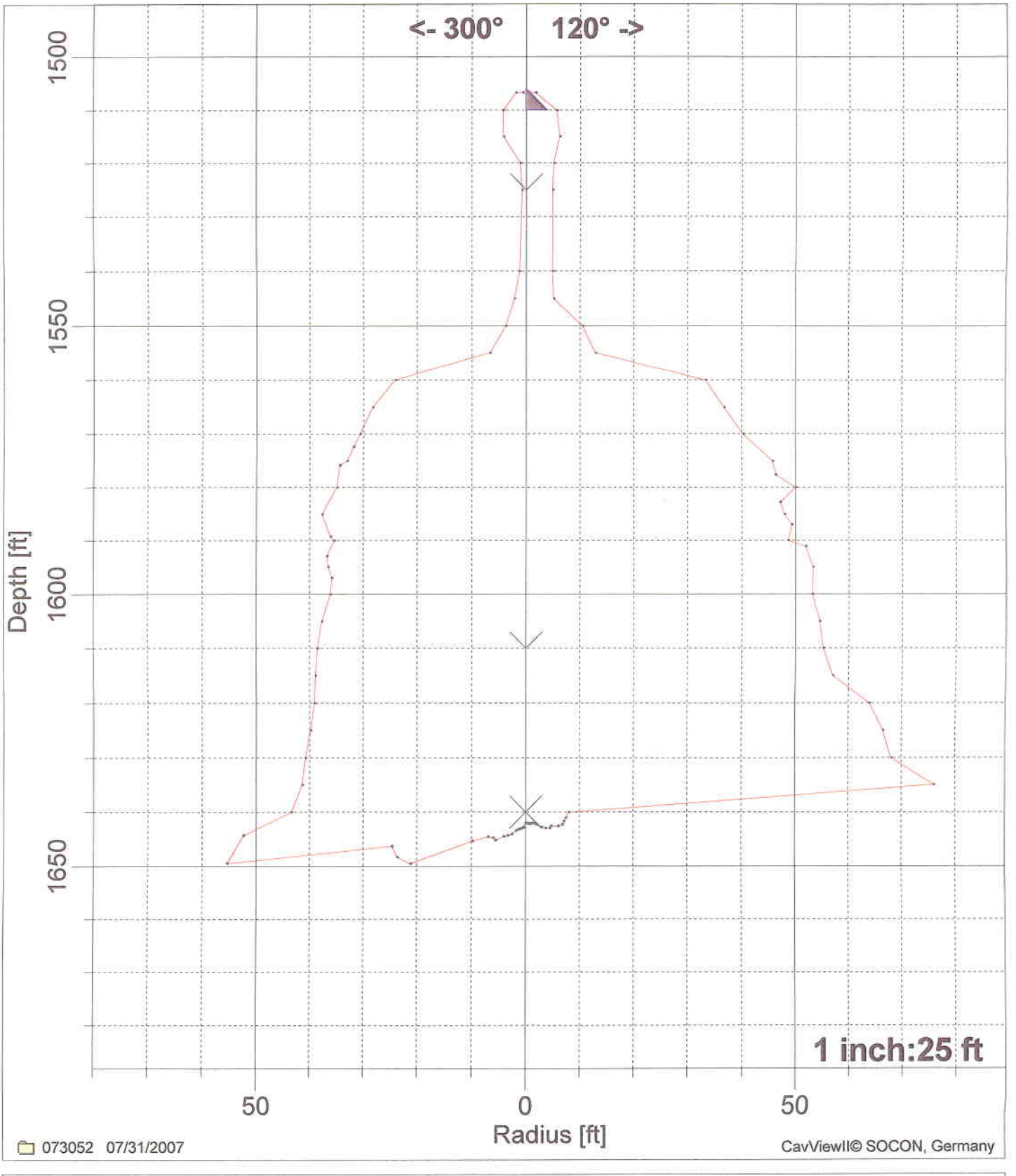


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

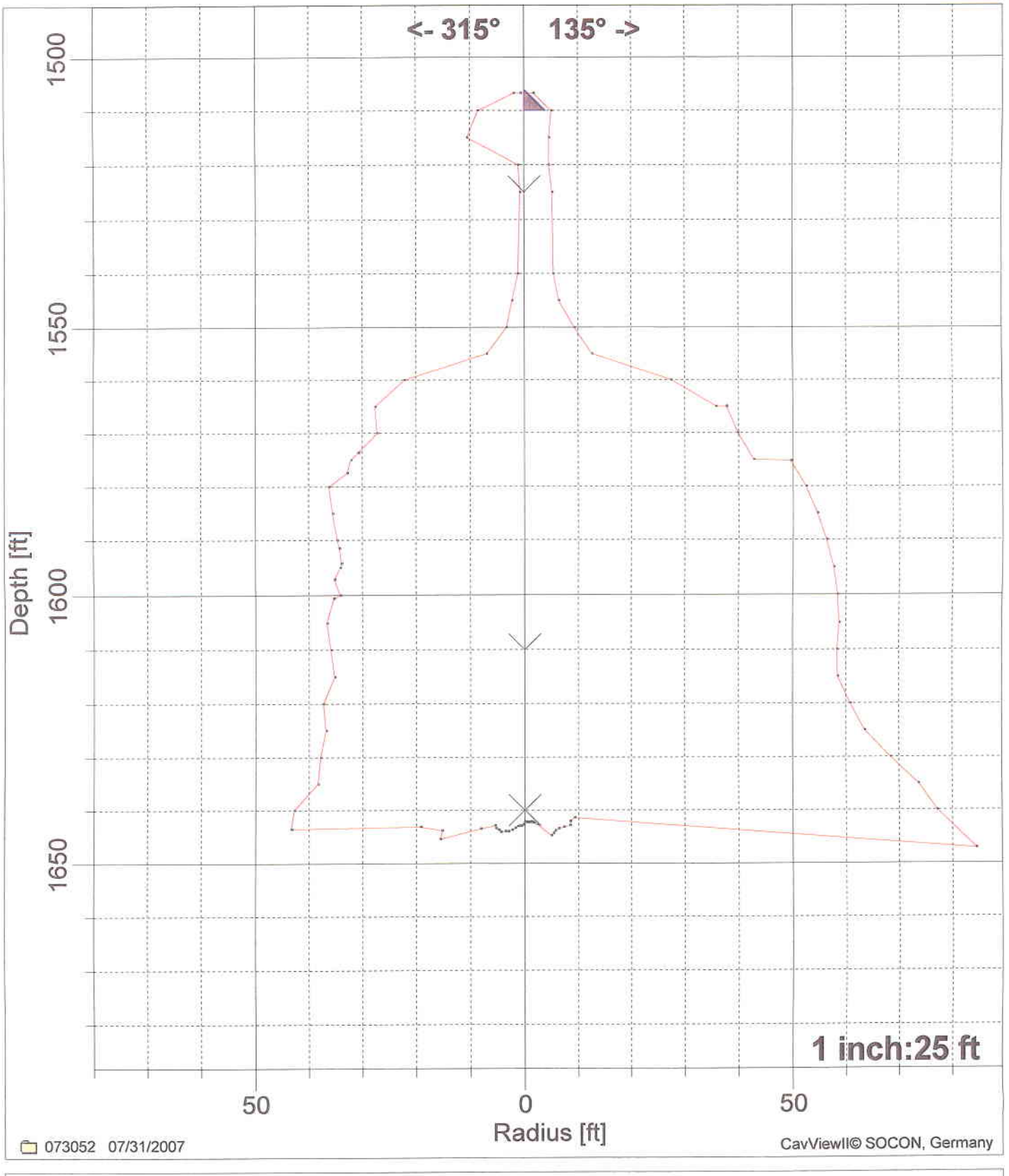


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

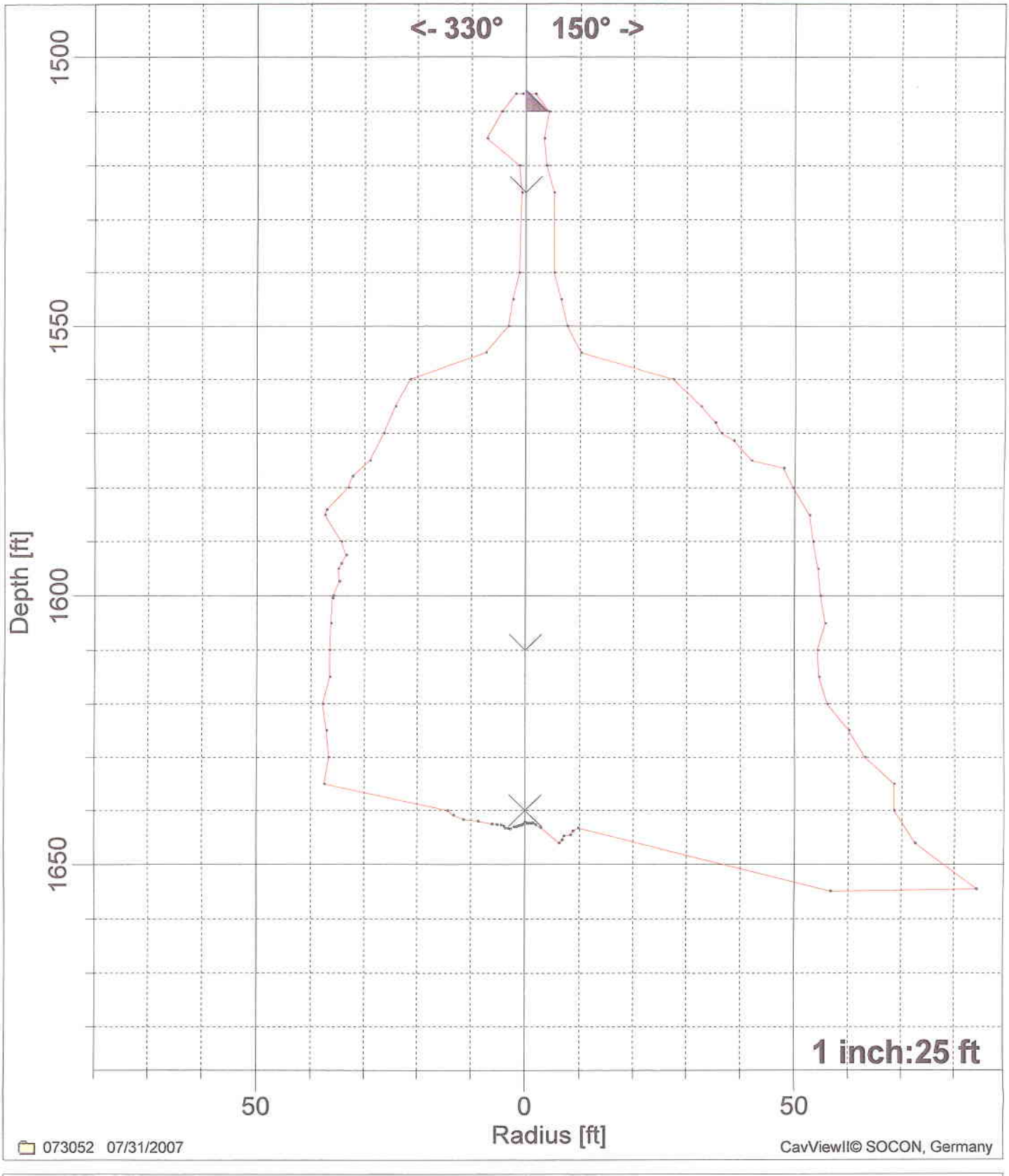


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007

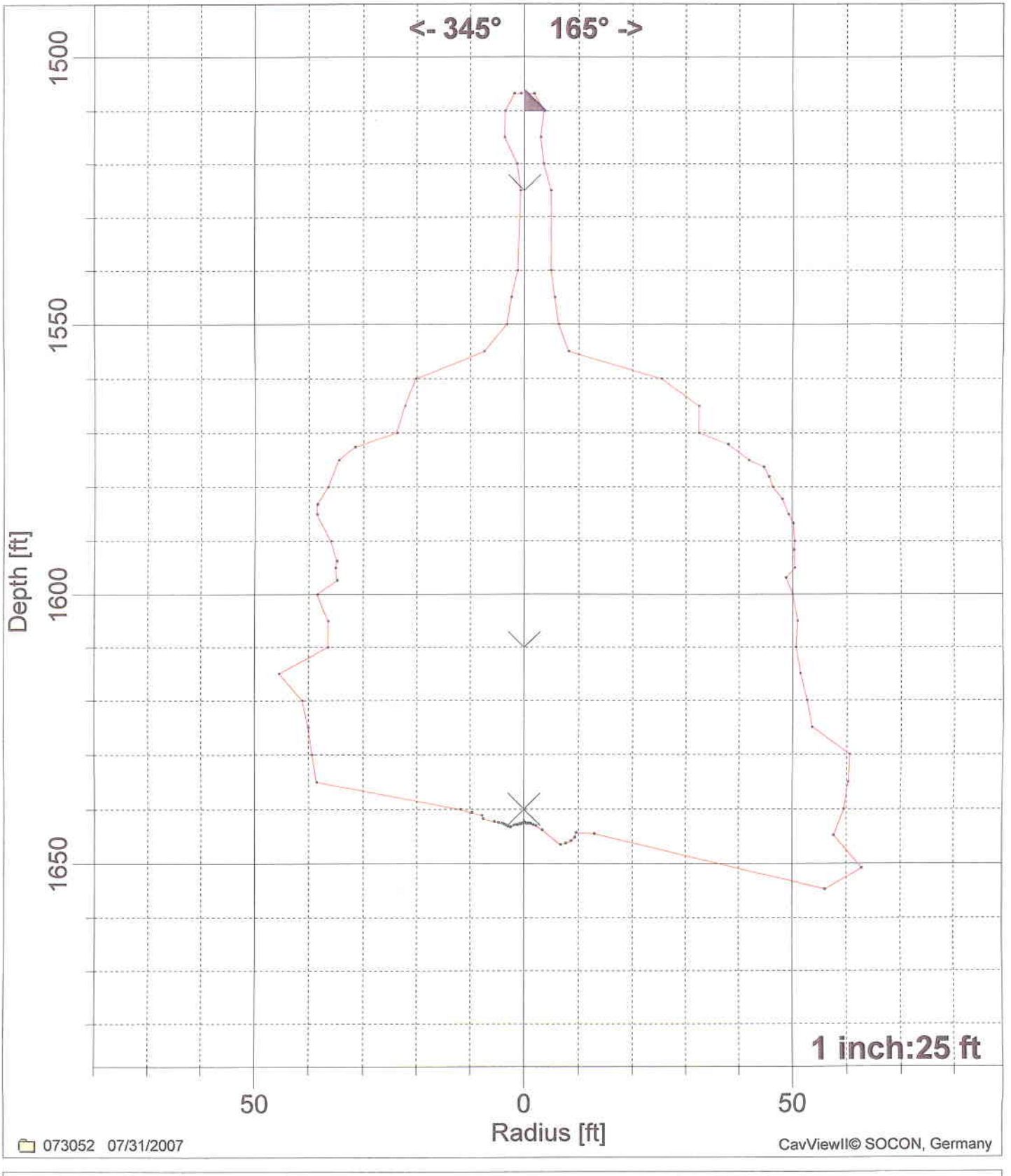


(07/31/2007) 7" : 1510.0 ft Tilting position

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1

07/31/2007



(07/31/2007) 7" : 1510.0 ft Tilting position

HORIZONTAL SECTIONS

Cavern No: LPG 1 Report No.: 073052

Utilized speed of sound: 5950.0 ft/s to 5950.0 ft/s

Measuring date: 07/31/2007 Scale: 1: 25

Horizontal sections measured at following depths:

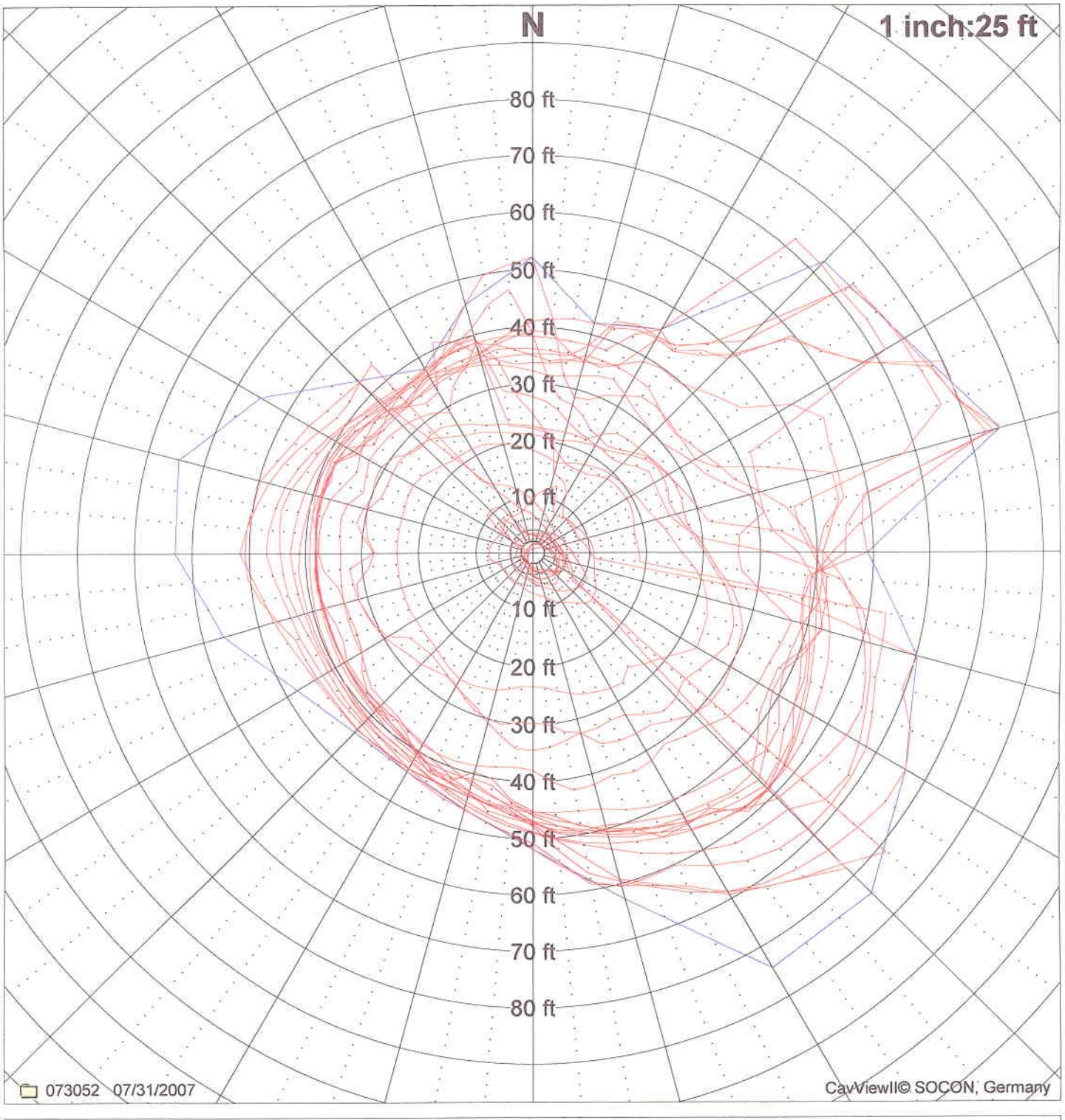
1510.0 ft	1515.0 ft	1520.0 ft	1525.0 ft	1540.0 ft	1545.0 ft	1550.0 ft
1555.0 ft	1560.0 ft	1565.0 ft	1570.0 ft	1575.0 ft	1580.0 ft	1585.0 ft
1590.0 ft	1595.0 ft	1600.0 ft	1605.0 ft	1610.0 ft	1615.0 ft	1620.0 ft
1625.0 ft	1630.0 ft	1635.0 ft	1640.0 ft			

The following 7 sections are constructed:

1641.0 ft	1646.0 ft	1651.0 ft	1656.0 ft	1661.0 ft	1666.0 ft	1671.0 ft

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 — MAXPLOT — 07/31/2007



Vertical maximum plot — Horizontal sections — a/b

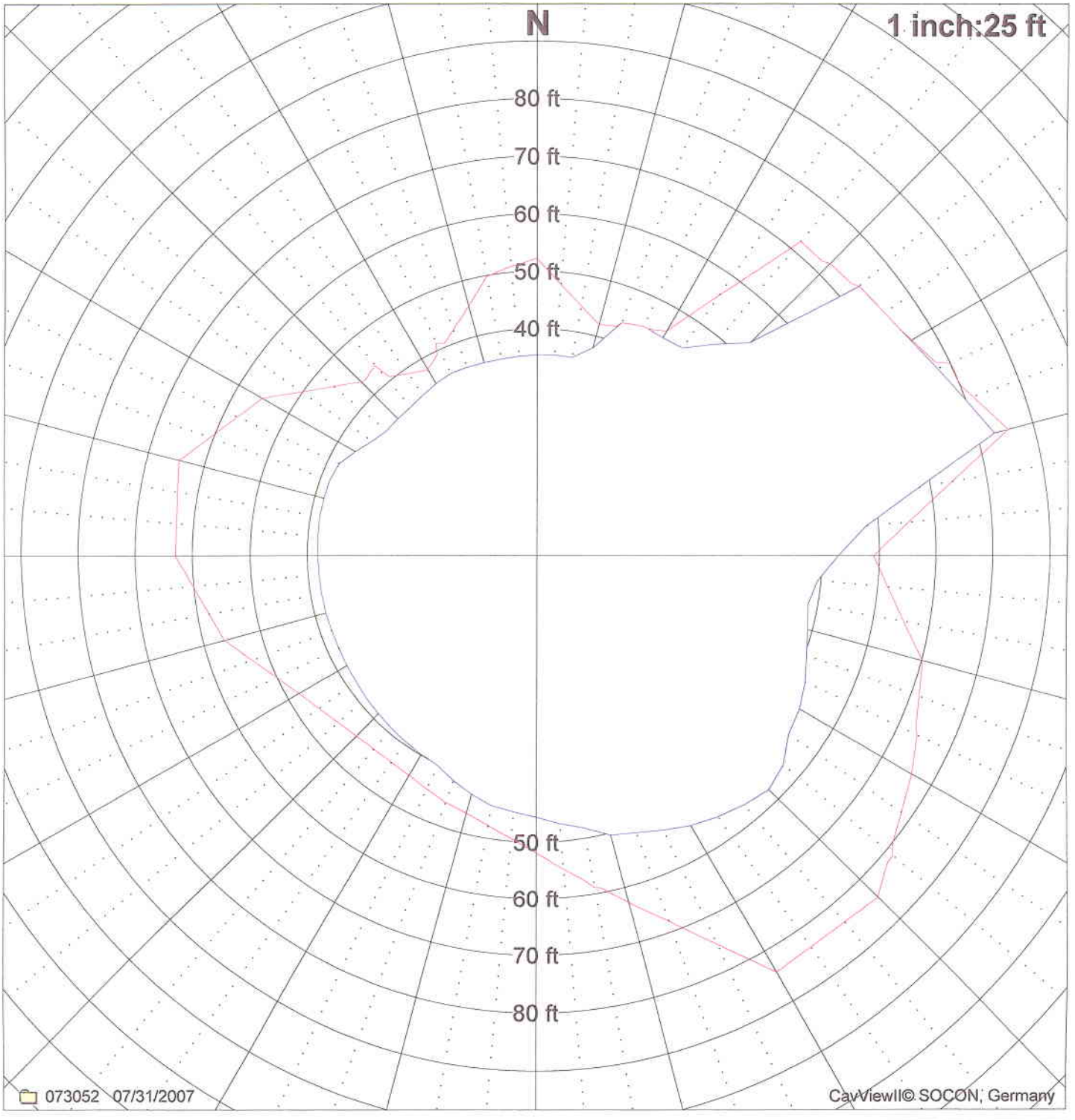
d_{max}: 141.9 ft 75° <--> 255° r_{min}: 37.7 ft -> 330° r~: 60.0 ft r_{max}: 85.6 ft -> 75°

a/b = 1.278 a = 147.2 ft (74°-270°) b = 115.1 ft (31°-149°)

Area from vertical sections: 11196 ft², Area from horizontal and vertical sections: 11325 ft²

SOCON Sonar Well Services, Inc.

Cavern No: LPG 1 — MAXPLOT — 07/31/2007



a/b — Horizontal/vertical maximum plot — Largest single area

d_{max}: 141.9 ft 75° <--> 255° r_{min}: 37.7 ft -> 330° r~: 60.0 ft r_{max}: 85.6 ft -> 75°

a/b = 1.278 a = 147.2 ft (74°-270°) b = 115.1 ft (31°-149°)

Largest single area: 7139 ft² in depth: 1595.0 ft, Area from horizontal and vertical sections: 11325 ft²

SOCON Sonar Well Services, Inc.

Table of radii

Cavern No: LPG 1 73052 7/31/2007

Depth: 1510.0 ft

[°]	Radii in [ft]									
0	3.3	3.2	3.1	3.1	3.2	3.4	3.5	3.6	3.7	3.8
50	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.8	5.1
100	5.4	5.6	5.7	5.8	5.8	5.9	5.5	5.1	4.8	4.6
150	4.3	4.1	3.9	3.7	3.5	3.3	3.1	2.9	2.9	2.8
200	2.7	2.6	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6
250	2.7	2.8	2.9	2.9	2.8	2.8	2.7	2.6	2.5	3.4
300	4.2	5.0	7.2	8.4	7.7	6.2	4.3	4.0	3.7	3.5
350	3.4	3.4								

Depth: 1515.0 ft

[°]	Radii in [ft]									
0	3.3	3.1	3.0	2.9	2.8	2.8	2.8	2.8	2.9	3.0
50	3.1	3.2	3.3	3.4	3.6	3.9	4.1	4.5	5.0	5.4
100	5.7	6.1	6.3	6.4	6.3	5.8	5.3	4.7	4.0	3.7
150	3.4	3.2	3.1	3.0	2.9	2.7	2.6	2.5	2.4	2.2
200	2.1	2.0	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6
250	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
300	4.1	7.3	10.4	10.4	10.4	9.9	7.1	5.6	4.4	3.6
350	3.5	3.4								

Depth: 1520.0 ft

[°]	Radii in [ft]									
0	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.1	2.1	3.2
50	3.6	3.8	4.0	4.1	4.2	4.3	4.4	4.5	4.7	4.8
100	4.8	4.9	5.1	5.2	5.2	5.0	4.9	4.7	4.4	4.1
150	3.9	3.8	3.7	3.6	3.3	3.1	2.8	2.5	2.2	2.0
200	1.9	1.7	1.6	1.5	1.5	1.4	1.3	1.2	1.1	1.0
250	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9
300	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.2	1.3	1.3
350	1.4	1.5								

Depth: 1525.0 ft

[°]	Radii in [ft]									
0	0.7	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.2
50	1.3	1.5	1.9	2.4	2.8	2.9	3.1	3.2	3.4	3.5
100	3.8	4.1	4.4	4.7	5.0	5.1	5.2	5.3	5.4	5.3
150	5.2	5.1	5.0	4.9	4.5	4.1	3.7	3.2	2.8	2.4
200	2.1	1.8	1.5	1.3	1.2	1.1	1.0	0.9	0.9	0.8
250	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
300	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
350	0.7	0.7								

SOCON Sonar Well Services, Inc.

Table of radii

Cavern No: LPG 1 73052 7/31/2007

Depth: 1540.0 ft

[°]	Radii in [ft]									
0	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.9	2.0
50	2.0	2.2	2.3	2.4	2.6	2.7	2.9	3.1	3.3	3.5
100	3.8	4.2	4.5	4.8	5.0	5.2	5.4	5.5	5.4	5.3
150	5.2	5.1	5.0	4.9	4.7	4.4	4.1	3.8	3.5	3.2
200	2.9	2.7	2.5	2.2	2.0	1.8	1.7	1.6	1.5	1.5
250	1.4	1.3	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1
300	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1	1.2	1.2
350	1.3	1.3								

Depth: 1545.0 ft

[°]	Radii in [ft]									
0	2.5	2.5	2.6	2.6	2.7	2.8	2.9	2.9	3.0	3.0
50	3.0	3.1	68.2	3.2	3.3	3.3	3.4	3.6	3.8	4.1
100	4.3	4.6	4.8	5.0	5.2	5.4	5.9	6.5	6.8	6.9
150	6.5	6.0	5.7	5.6	5.4	5.2	4.9	4.6	4.4	4.2
200	4.0	3.8	3.6	3.3	3.1	2.9	2.7	2.5	2.4	2.3
250	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0
300	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.4
350	2.4	2.4								

Depth: 1550.0 ft

[°]	Radii in [ft]									
0	3.3	3.4	3.4	3.5	3.5	3.8	4.0	4.3	4.6	4.9
50	5.1	5.3	69.7	5.7	5.9	6.0	6.3	6.7	7.1	7.5
100	8.0	8.8	9.7	10.6	10.6	10.4	9.9	9.4	8.9	8.4
150	7.7	7.1	6.6	6.3	5.9	5.6	5.3	5.1	4.8	4.7
200	4.6	4.5	4.5	4.4	4.3	4.2	4.2	4.1	4.0	3.9
250	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
300	3.7	3.5	3.4	3.2	3.1	3.0	3.1	3.1	3.2	3.2
350	3.3	3.3								

Depth: 1555.0 ft

[°]	Radii in [ft]									
0	9.5	10.4	11.2	11.9	12.6	8.6	7.8	7.8	8.1	8.5
50	8.7	8.8	71.3	9.4	9.7	10.1	10.5	10.7	10.8	10.9
100	11.1	11.3	11.6	12.3	13.0	13.2	13.4	12.7	11.6	10.7
150	10.2	9.6	8.7	8.2	7.8	7.5	7.3	7.0	6.6	6.3
200	6.0	6.0	6.1	6.2	6.1	6.0	5.9	5.8	5.8	5.9
250	6.1	6.7	7.4	7.7	7.6	7.6	7.4	7.1	6.9	6.7
300	6.6	6.5	6.6	6.9	7.3	7.3	7.3	7.3	7.3	7.4
350	7.9	8.7								

SOCON Sonar Well Services, Inc.

Table of radii

Cavern No: LPG 1 73052 7/31/2007

Depth: 1560.0 ft

[°]	Radii in [ft]									
0	18.3	17.7	17.1	16.5	17.0	17.6	18.1	18.6	19.2	19.6
50	19.9	20.4	72.8	21.2	21.7	22.7	23.8	24.9	26.4	28.6
100	30.6	31.8	32.8	33.1	33.4	31.0	29.0	27.6	26.2	27.7
150	27.4	26.8	26.2	25.4	24.5	23.6	23.4	23.5	24.2	24.8
200	25.1	25.4	25.4	24.8	24.2	23.6	23.4	23.5	23.5	23.6
250	23.6	23.6	23.6	23.5	23.6	23.6	23.6	23.6	23.7	23.9
300	24.0	23.6	22.8	22.1	21.5	21.4	21.3	21.2	20.7	20.1
350	19.5	18.9								

Depth: 1565.0 ft

[°]	Radii in [ft]									
0	21.1	20.8	20.5	20.7	21.2	21.6	22.1	22.4	23.2	71.1
50	25.8	26.8	74.3	26.5	25.7	26.3	27.4	28.8	30.4	32.1
100	34.5	36.4	37.7	38.0	36.8	35.7	34.8	35.9	36.1	34.4
150	32.6	32.3	32.7	32.5	31.6	30.0	29.7	29.6	30.4	29.9
200	29.3	28.0	26.6	25.9	25.3	24.9	25.4	25.9	29.1	30.3
250	30.9	31.4	31.1	28.6	27.6	28.9	29.5	29.9	28.2	28.0
300	28.2	28.4	28.0	27.5	26.7	25.2	24.1	23.6	22.9	22.2
350	21.7	21.4								

Depth: 1570.0 ft

[°]	Radii in [ft]									
0	22.6	22.2	22.2	22.3	22.3	22.3	24.4	26.0	26.3	72.5
50	26.7	27.2	74.1	28.0	28.0	27.7	27.8	29.3	30.9	32.6
100	35.6	37.7	39.3	39.8	40.3	40.9	40.8	40.0	38.3	36.6
150	36.4	36.2	35.4	32.5	33.3	34.1	34.5	34.3	32.3	30.5
200	28.7	27.6	26.9	26.2	26.7	27.4	27.8	28.6	29.6	30.5
250	31.0	31.4	31.8	32.1	27.7	29.5	31.2	30.5	29.7	30.4
300	30.5	29.6	27.6	27.1	27.5	27.4	26.3	25.3	24.2	23.7
350	23.3	22.9								

Depth: 1575.0 ft

[°]	Radii in [ft]									
0	32.3	31.6	31.8	32.4	33.4	33.9	32.6	31.3	30.6	72.0
50	30.2	31.3	72.9	33.4	35.9	39.5	41.4	36.6	36.2	36.9
100	40.9	47.2	46.5	45.8	45.8	45.4	44.7	42.9	41.8	40.8
150	42.0	42.3	41.3	41.9	42.1	40.2	41.9	37.5	37.9	38.4
200	38.7	38.7	38.6	37.8	36.8	36.7	36.7	35.5	34.5	34.4
250	34.3	34.1	33.9	33.7	33.6	33.8	34.1	33.5	31.4	32.1
300	32.9	32.8	32.5	32.0	31.3	30.5	28.9	32.7	34.9	34.5
350	33.8	33.1								

SOCON Sonar Well Services, Inc.

Table of radii

Cavern No: LPG 1 73052 7/31/2007

Depth: 1580.0 ft

[°]	Radii in [ft]									
0	33.7	33.7	34.3	36.2	36.2	36.2	36.0	35.8	34.5	71.9
50	33.0	34.0	73.4	36.4	37.9	41.5	45.4	48.0	49.9	51.2
100	51.1	49.2	48.6	48.8	50.1	53.0	53.7	52.5	51.3	50.6
150	49.8	49.1	47.8	46.4	45.8	45.6	45.4	44.3	43.1	41.7
200	40.3	38.8	38.2	37.6	37.5	37.5	37.6	36.4	34.4	33.7
250	33.8	34.0	34.6	36.7	37.5	37.5	37.4	36.7	35.1	33.9
300	34.8	35.6	36.2	36.1	34.0	32.5	33.0	41.2	39.8	36.4
350	34.7	33.6								

Depth: 1585.0 ft

[°]	Radii in [ft]									
0	38.4	38.2	38.1	38.1	38.2	42.6	45.6	55.9	72.0	72.0
50	71.5	72.0	72.0	42.4	41.6	41.2	41.3	42.6	46.8	49.5
100	51.3	52.8	50.3	47.7	48.0	48.8	51.7	54.6	54.7	53.6
150	52.8	51.3	50.3	49.3	49.4	48.6	47.4	46.5	45.7	43.1
200	42.4	42.4	40.7	38.4	37.5	38.3	38.6	38.3	38.0	38.0
250	38.0	38.0	37.9	37.8	37.9	38.2	38.5	38.5	38.4	38.2
300	37.6	33.7	34.5	35.4	36.3	37.0	37.4	37.9	38.4	38.5
350	38.6	38.6								

Depth: 1590.0 ft

[°]	Radii in [ft]									
0	36.2	36.0	35.8	35.4	35.0	36.7	43.3	44.9	48.2	57.3
50	73.0	74.5	75.3	75.9	77.0	67.7	46.7	47.2	49.2	52.0
100	52.3	52.4	51.2	48.7	48.7	50.7	53.6	56.3	55.3	54.4
150	53.5	52.7	51.7	50.4	49.1	47.9	46.9	45.9	44.8	43.7
200	42.5	41.3	40.2	39.2	38.5	38.3	38.2	38.0	38.0	38.0
250	38.0	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.0	38.0
300	35.3	35.1	34.8	34.5	34.3	34.1	34.3	34.5	35.1	35.9
350	36.6	36.4								

Depth: 1595.0 ft

[°]	Radii in [ft]									
0	35.3	35.4	35.4	37.8	43.6	44.5	44.2	44.6	48.5	52.9
50	73.8	74.5	75.7	77.6	80.0	83.1	67.9	57.8	52.8	49.4
100	48.3	49.2	50.4	52.0	53.3	54.1	56.6	57.7	56.7	55.6
150	54.4	52.8	51.4	50.4	48.2	46.9	45.6	44.8	44.2	43.0
200	41.6	40.2	39.8	39.4	39.0	38.7	38.5	38.2	38.0	37.9
250	37.9	38.0	38.0	38.0	38.1	38.2	38.3	38.3	38.3	37.9
300	36.4	34.9	34.0	34.0	34.0	34.3	34.8	35.3	35.2	35.1
350	35.1	35.2								

SOCON Sonar Well Services, Inc.

Table of radii

Cavern No: LPG 1 73052 7/31/2007

Depth: 1600.0 ft

[°]	Radii in [ft]									
0	35.0	34.2	34.8	34.9	43.0	44.2	45.5	43.6	46.8	48.6
50	59.6	62.2	67.5	77.9	79.8	85.6	59.1	58.3	59.0	48.6
100	48.1	48.8	51.5	52.8	53.2	55.9	56.9	58.5	59.2	54.6
150	54.9	54.8	51.2	50.0	48.5	46.2	45.2	43.3	40.1	39.5
200	42.5	41.8	39.9	39.0	38.5	37.7	37.7	37.5	37.5	36.5
250	36.6	37.6	38.2	38.4	37.7	37.9	39.2	38.8	37.5	38.5
300	36.0	35.6	34.0	34.0	34.0	35.1	35.8	35.0	34.5	38.4
350	37.4	36.2								

Depth: 1605.0 ft

[°]	Radii in [ft]									
0	41.0	41.6	42.0	42.1	42.3	43.6	43.9	43.5	45.7	49.6
50	58.9	62.6	67.2	79.9	80.1	84.4	59.7	55.4	55.1	49.2
100	49.5	50.3	51.9	53.4	54.6	56.2	57.8	58.8	58.2	57.2
150	55.8	53.9	52.3	50.9	49.6	47.8	45.9	43.7	41.2	40.7
200	41.7	41.6	40.4	39.5	39.0	38.6	38.1	38.0	37.9	37.8
250	37.7	37.8	37.8	37.9	38.0	38.1	38.1	38.1	38.1	37.9
300	37.6	37.2	36.8	36.5	36.4	36.3	36.2	36.2	36.3	36.4
350	37.8	39.4								

Depth: 1610.0 ft

[°]	Radii in [ft]									
0	39.4	39.0	36.5	35.0	35.5	36.8	39.1	39.9	39.7	41.1
50	42.9	44.9	52.7	56.7	55.7	55.7	55.7	51.5	50.2	50.3
100	50.8	51.6	52.6	53.9	55.3	56.7	58.0	58.4	58.1	55.6
150	54.3	53.0	51.7	50.6	49.8	49.0	46.9	44.6	42.8	41.2
200	40.9	40.9	40.8	40.3	39.8	39.2	39.0	38.9	38.7	38.5
250	38.4	38.3	38.3	38.2	38.1	38.1	38.3	38.5	38.7	38.9
300	38.4	37.7	36.8	35.8	34.8	35.4	36.4	35.7	35.4	36.4
350	37.4	38.4								

Depth: 1615.0 ft

[°]	Radii in [ft]									
0	52.2	41.7	31.9	28.7	28.9	30.9	32.2	33.8	34.0	33.7
50	33.3	33.1	33.2	35.8	44.2	54.7	54.8	52.7	51.1	51.2
100	52.7	54.2	55.4	56.3	57.1	57.9	58.4	58.5	58.3	55.4
150	54.6	53.9	52.8	51.4	50.3	49.2	47.2	45.6	44.6	43.6
200	42.7	42.1	41.4	41.1	40.9	40.6	40.3	40.0	39.8	39.6
250	39.5	39.4	39.3	39.2	39.1	39.1	39.2	39.4	39.5	39.4
300	38.8	37.9	36.5	35.1	34.6	35.5	36.4	37.9	41.3	45.4
350	49.8	51.0								

SOCON Sonar Well Services, Inc.

Table of radii

Cavern No: LPG 1 73052 7/31/2007

Depth: 1620.0 ft

[°]	Radii in [ft]									
0	39.0	31.3	27.8	27.3	26.0	24.2	23.7	23.1	23.9	25.2
50	26.6	26.9	27.6	28.4	29.2	30.3	31.6	43.6	51.3	54.9
100	57.9	60.5	62.5	64.2	64.0	62.9	61.6	60.9	58.4	57.2
150	56.1	54.9	53.7	52.6	51.4	50.1	48.8	47.5	46.3	45.0
200	43.8	42.9	42.0	41.0	40.9	40.8	40.7	40.6	40.5	40.4
250	40.6	40.8	40.9	41.1	40.9	40.5	40.2	39.8	39.6	39.3
300	39.0	38.5	37.9	37.2	36.8	37.3	37.7	38.2	39.4	41.1
350	44.6	46.8								

Depth: 1625.0 ft

[°]	Radii in [ft]									
0	27.8	27.1	25.9	24.2	23.2	22.6	22.2	22.0	21.8	22.4
50	23.8	25.1	24.9	24.7	24.8	25.1	26.9	29.6	42.0	54.3
100	59.0	61.7	63.4	64.9	66.6	68.0	67.3	63.6	62.9	62.2
150	60.1	58.1	55.8	53.6	51.8	50.3	49.0	48.0	46.8	45.6
200	44.3	43.0	42.3	41.9	41.6	41.2	40.9	40.5	40.6	40.9
250	41.1	41.4	41.7	42.1	42.5	42.1	41.7	41.3	40.8	40.2
300	39.7	39.0	37.7	36.7	36.8	36.9	37.0	38.0	39.0	40.0
350	29.2	28.5								

Depth: 1630.0 ft

[°]	Radii in [ft]									
0	24.9	22.2	19.5	18.1	16.9	16.6	16.7	16.9	17.8	18.6
50	18.9	19.1	19.2	19.2	19.0	18.6	18.3	18.6	18.8	19.1
100	63.2	63.8	64.4	66.2	68.1	68.6	68.7	68.5	67.6	65.7
150	63.2	60.3	60.4	60.5	58.4	54.9	51.8	49.1	47.7	46.3
200	45.0	44.2	43.3	42.4	41.7	41.7	41.6	41.5	41.4	41.3
250	41.9	42.7	43.5	43.9	44.3	44.6	44.8	43.9	42.4	41.6
300	40.7	39.8	38.5	37.7	37.0	36.7	36.5	37.4	39.1	39.3
350	34.6	27.6								

Depth: 1635.0 ft

[°]	Radii in [ft]									
0	22.2	21.8	21.4	14.7	14.1	13.6	11.9	9.3	8.3	8.4
50	8.4	8.4	8.4	8.4	8.4	8.8	9.3	9.8	10.3	10.9
100	44.6	70.2	69.5	73.8	76.1	76.1	74.9	73.7	72.4	70.8
150	68.6	64.4	62.0	60.3	58.9	54.2	50.8	49.2	47.6	46.4
200	45.6	44.7	44.0	43.4	42.7	42.2	42.3	42.4	42.5	42.8
250	43.4	43.9	44.6	45.7	46.8	46.5	45.8	45.0	43.8	42.5
300	41.3	40.1	38.8	38.2	37.6	36.9	37.4	37.9	38.2	38.5
350	23.0	22.6								

SOCON Sonar Well Services, Inc.

Table of radii

Cavern No: LPG 1 73052 7/31/2007

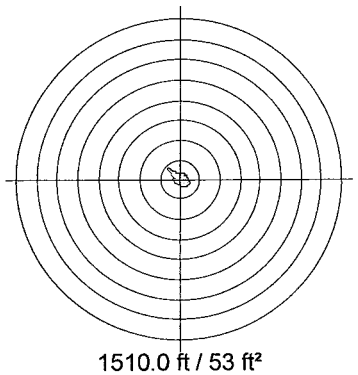
Depth: 1640.0 ft

[°]	Radii in [ft]									
0	9.4	8.6	7.9	7.4	7.0	6.6	6.1	5.9	5.6	5.4
50	5.2	4.9	4.7	4.5	4.7	4.9	5.1	5.3	5.5	5.9
100	6.4	6.8	7.2	7.7	8.1	8.5	81.5	77.2	74.3	71.5
150	68.6	65.6	62.3	59.5	56.9	52.2	47.8	45.1	44.5	44.0
200	43.5	43.4	43.4	43.3	43.3	43.3	43.2	43.2	43.6	43.9
250	44.2	46.4	48.6	50.3	50.5	50.4	49.2	48.0	46.5	44.9
300	43.3	42.0	41.8	42.7	43.7	15.5	14.2	13.3	12.7	11.8
350	11.0	10.2								

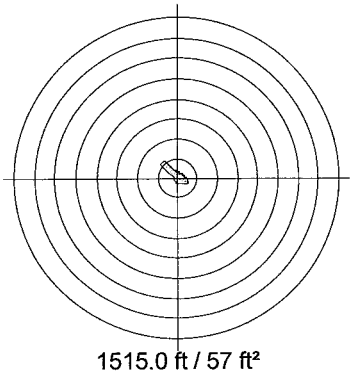
SOCON Sonar Well Services, Inc.

Horizontal slices 1 - 12

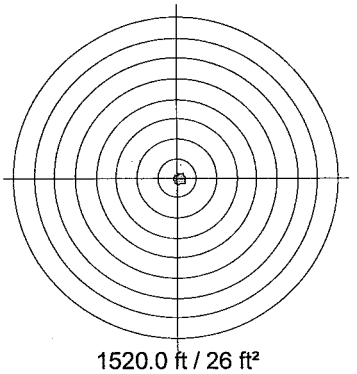
Cavity: Cavern No: LPG 1 Report number: 073052 Date: 07/31/2007



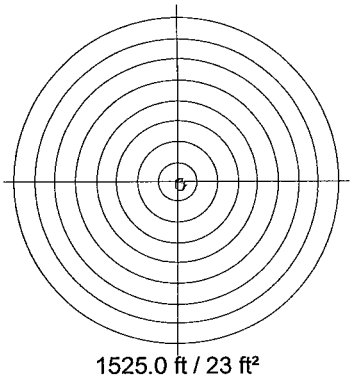
1510.0 ft / 53 ft²



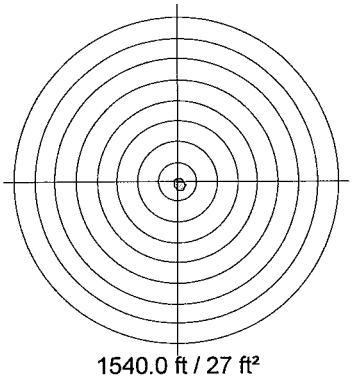
1515.0 ft / 57 ft²



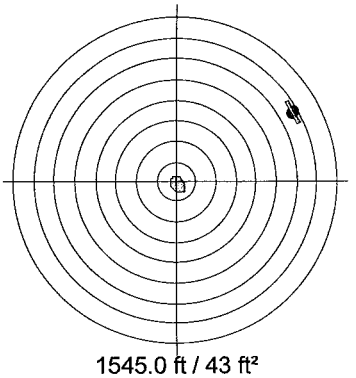
1520.0 ft / 26 ft²



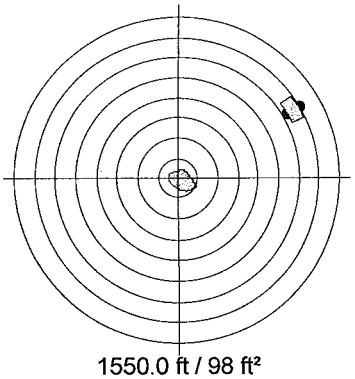
1525.0 ft / 23 ft²



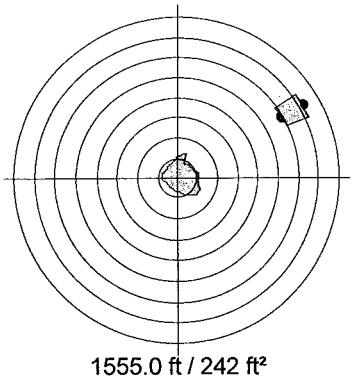
1540.0 ft / 27 ft²



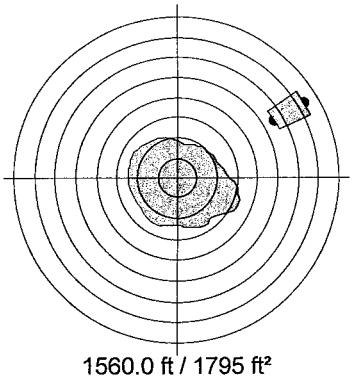
1545.0 ft / 43 ft²



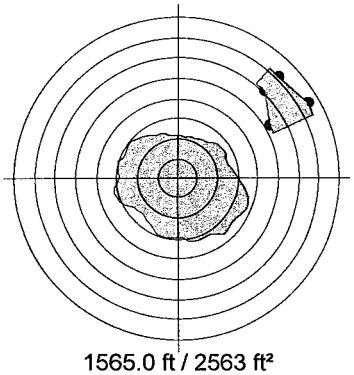
1550.0 ft / 98 ft²



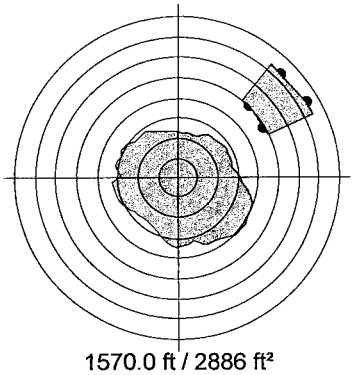
1555.0 ft / 242 ft²



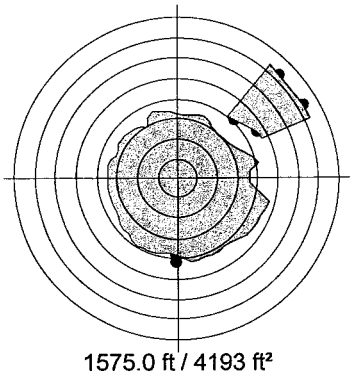
1560.0 ft / 1795 ft²



1565.0 ft / 2563 ft²



1570.0 ft / 2886 ft²



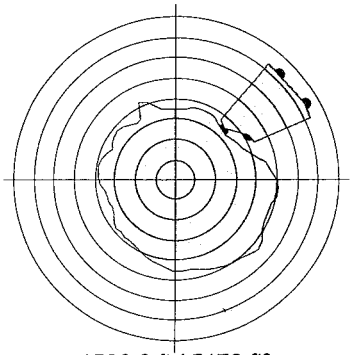
1575.0 ft / 4193 ft²

The distance between 2 circles equals 10 ft

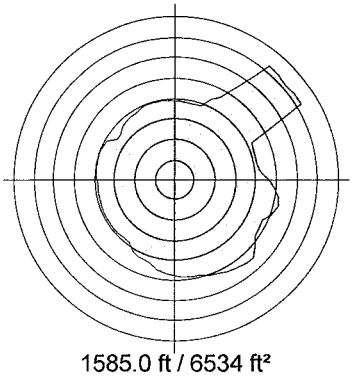
SOCON Sonar Well Services, Inc.

Horizontal slices 13 - 24

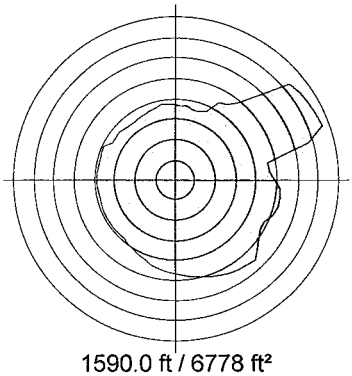
Cavity: Cavern No: LPG 1 Report number: 073052 Date: 07/31/2007



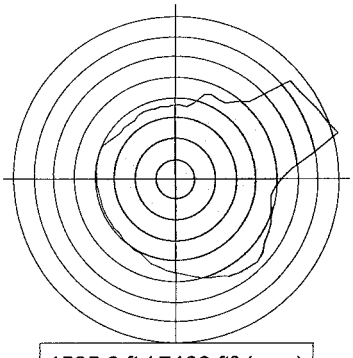
1580.0 ft / 5179 ft²



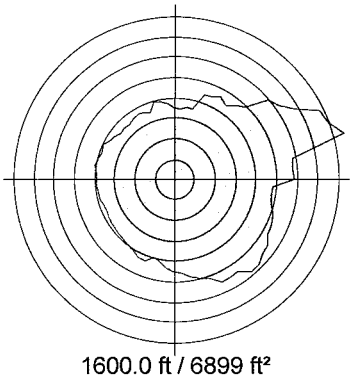
1585.0 ft / 6534 ft²



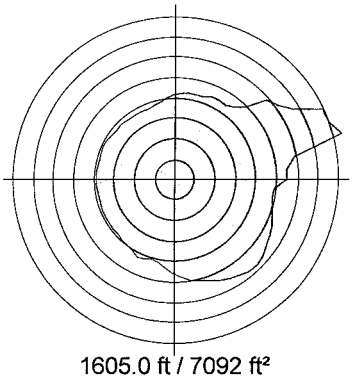
1590.0 ft / 6778 ft²



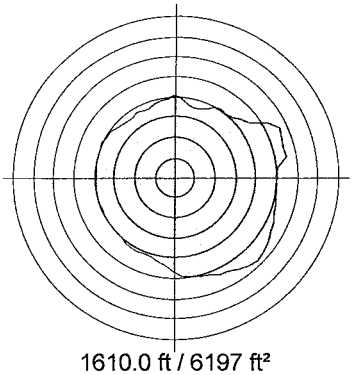
1595.0 ft / 7139 ft² (max)



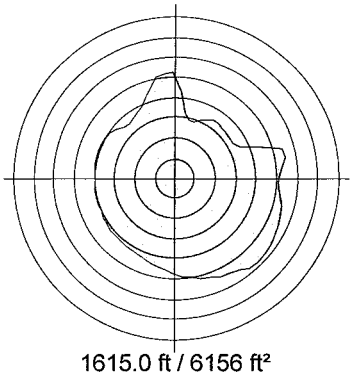
1600.0 ft / 6899 ft²



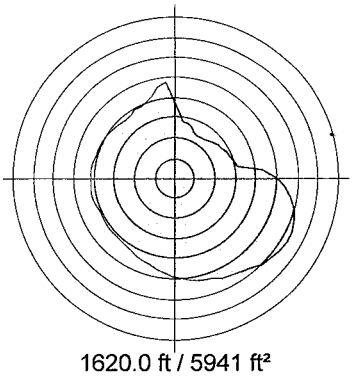
1605.0 ft / 7092 ft²



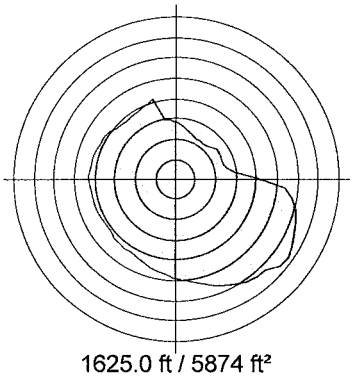
1610.0 ft / 6197 ft²



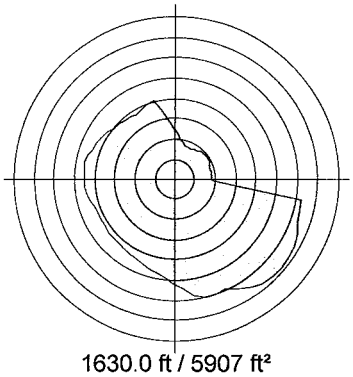
1615.0 ft / 6156 ft²



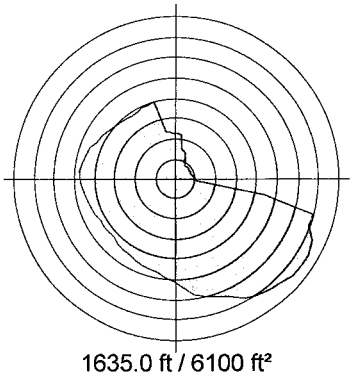
1620.0 ft / 5941 ft²



1625.0 ft / 5874 ft²



1630.0 ft / 5907 ft²



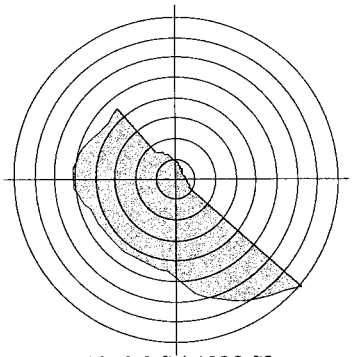
1635.0 ft / 6100 ft²

The distance between 2 circles equals 10 ft

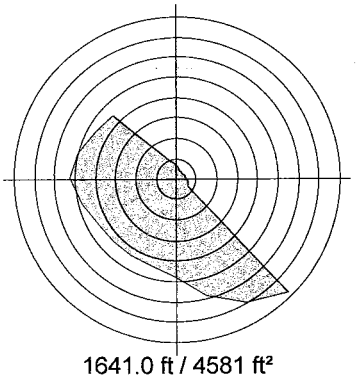
SOCON Sonar Well Services, Inc.

Horizontal slices 25 - 32

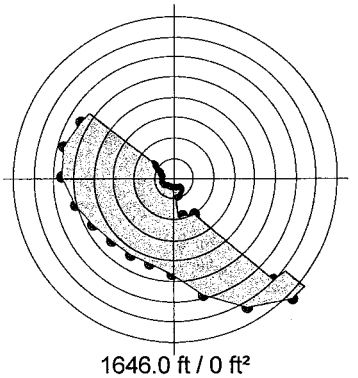
Cavity: Cavern No: LPG 1 Report number: 073052 Date: 07/31/2007



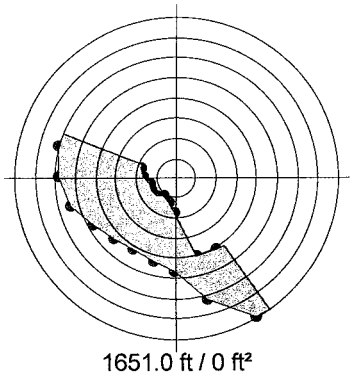
1640.0 ft / 4628 ft²



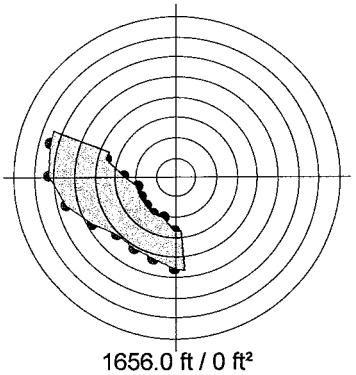
1641.0 ft / 4581 ft²



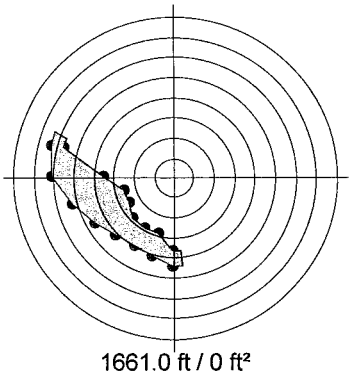
1646.0 ft / 0 ft²



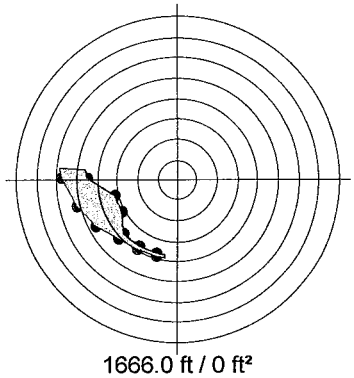
1651.0 ft / 0 ft²



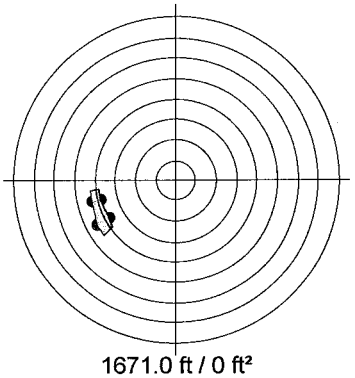
1656.0 ft / 0 ft²



1661.0 ft / 0 ft²



1666.0 ft / 0 ft²



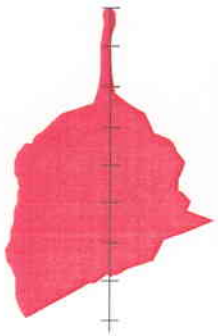
1671.0 ft / 0 ft²

The distance between 2 circles equals 10 ft

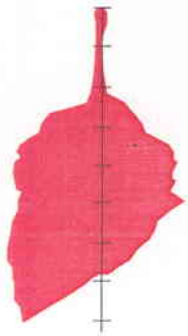
SOCON Sonar Well Services, Inc.

Vertical slices 1 - 12

Cavity: Cavern No: LPG 1 Report number: 073052 Date: 07/31/2007

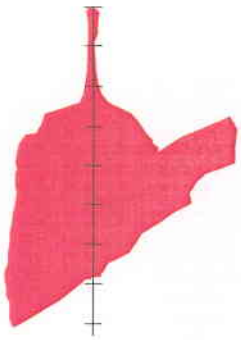


180° 0°

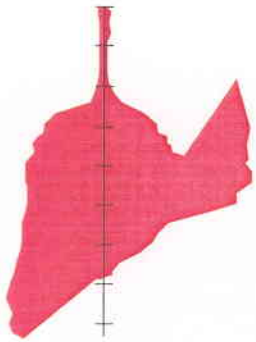


195° 15°

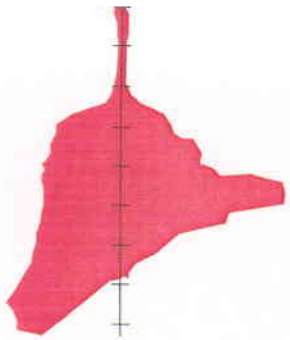
210° 30°



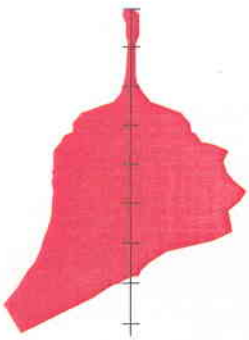
225° 45°



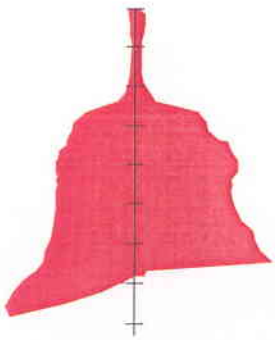
240° 60°



255° 75°

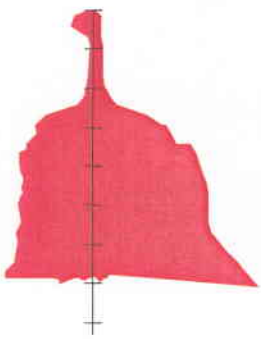


270° 90°



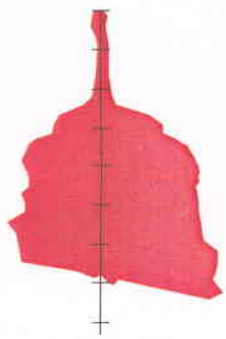
285° 105°

300° 120°



315° 135°

330° 150°



345° 165°

Range from 1506 ft to 1672 ft, step 20 ft

PB Energy Storage Services, Inc.
ENGINEERING - CONSTRUCTION - OPERATIONS - MAINTENANCE
A Parsons Brinckerhoff Company

11757 Katy Freeway #600
Houston, Texas 77079
(281) 496-5590
Fax (281) 589-5865
www.pbworld.com/pbenergy

RECEIVED
FEB 04 2008
DIV. OF OIL, GAS & MINING

LETTER OF TRANSMITTAL

DATE: January 31, 2008

TO: Ms. Carol Daniels
801-538-5284

COMPANY: **Utah Division of Oil, Gas and Mining**
P.O. Box 145801, Salt Lake City, Utah 84114-5801

ADDRESS: 1594 West North Temple, Suite 1210
Salt Lake City, Utah 84116

FROM: Wally Swartz
Project Manger
PB Energy Storage Services, Inc.
281-589-5810

TRANSMITTING THE FOLLOWING DOCUMENTS ON THIS DATE:

Enterprise Products Operating LP
Moab, Utah

- Form 8 : Well Completion or Recompletion Report and Log (Storage Well Buckeye No. 1)
- Attachments to Form 8
  - Sonar Caliper Log
  - XY Caliper and CCL
  - Daily Reports of test work completed

COMMENTS:

Subsequent plugging and abandonment report was submitted separately.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER Salt Cavern

b. TYPE OF WORK: NEW WELL ☐ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☑ DIFF. RESVR. ☐ OTHER Sonar

2. NAME OF OPERATOR: Enterprise Products Operating LP

3. ADDRESS OF OPERATOR: 1431 North Hwy 191 CITY Moab STATE UT ZIP 84532

PHONE NUMBER: (435) 259-6755

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 70' FNL, 3260' FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW:
AT TOTAL DEPTH: 1700

5. LEASE DESIGNATION AND SERIAL NUMBER: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT or CA AGREEMENT NAME: NA

8. WELL NAME and NUMBER: Buckeye #1

9. API NUMBER: ~~None~~ 43.019.31479

10 FIELD AND POOL, OR WILDCAT: Undesignated

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 35 ~~26S~~ 25S 21E

12. COUNTY: Grand

13. STATE: UTAH

14. DATE SPUDDED: 7-16-07

15. DATE T.D. REACHED:

16. DATE COMPLETED: 10.31.07 ABANDONED ☑ READY TO PRODUCE ☐

17. ELEVATIONS (DF, RKB, RT, GL):

18. TOTAL DEPTH: MD 1642 TVD per DKD

19. PLUG BACK T.D.: MD TVD

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
Sonar Caliper Log of Cavern, XY Caliper, CCL

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
NA	18 H-40	87.5	0	148				Surface	None
NA	13-3/8 H-40	48.0	0	620				Surface	None
NA	8-5/8 K-55	24.0	0	1,400				803	None
NA	7 K-55	17.0	0	1,510				Surface	None

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
NA								

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A)				
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

RECEIVED
FEB 04 2008
DIV. OF OIL, GAS & MINING

29. ENCLOSED ATTACHMENTS:

☑ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☑ OTHER: Daily Reports

30. WELL STATUS: P&A

(5/2000)

(CONTINUED ON BACK)

31. INITIAL PRODUCTION — **INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

Plugging and Abandonment detailed report was already submitted to State of Utah DEQ and DOGM.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Wally Swartz (281-589-5810) TITLE Project Manager, PB Energy Storage Services, Inc.

SIGNATURE Wally Swartz DATE 1/30/2008

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

PB Energy Storage Services, Inc.

Date 7/9/07	Report No. 1	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700	1400	7	Forklift on location at 0800 hours. Unload same. Wait on the rig to arrive.
1400			Rental tools, 2 7/8" PH-6 tubing, 6—4 ¾" collars, pump and tank arrive on location. Unload rental
	1700	3	tools, tubing and collars. Spot pump and tank at the well.
1700	1900	2	Rig arrived on location. Spot the rig at the well and rig up same.
			Safety Meeting: Hold safety meeting. Discuss rigging up the rig and unloading all equipment.
		Total 12	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/10/07	Report No. 2	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log		Elapse	Details of Operation
From	To	Time	
0700			John's Welding Service on location at 0700 hours. There was a hole cut in the 8 5/8" casing just below
			cap, there was no need to hot tap. It was cut in there when the cap was welded on. Cut 8 5/8" casing
			away from the 7" casing. Weld a 1 foot piece of 7" with 8 round threads on one end to the existing
	1000	3	7".
1000			Install 7 1/16 flange, drilling spool, hydrill, stripper head, and rig floor. Rig up tubing tongs. Rig up
			power swivel. Run pump lines from the pump to the well and from the well to the rig tank. Pick up a
	1630	6.5	joint of 2 7/8" tubing, x-over sub, bit sub, and bit. Ready to drill cement.
1630	1800	1.5	Drill cement from surface to 15'. Pull up in the clear. Close the well in. Shut down for the day.
			Safety Meeting: Hold safety meeting. Discuss cutting off the 8 5/8" casing, nipple up BOP stack,
			rigging up the power swivel and circulating the well.
		Total 11	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/11/07	Report No. 3	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Start drilling cement at 15'. While drilling we notice the 8 5/8" and the
			7" casing moving up and down and wobbling around. Stop drilling and pick up off bottom. Dug around
			the 8 5/8" casing down to the 13 3/8" casing and found the plate from the 13 3/8" to 8 5/8" casing had
			come loose due to rust and corrosion. At the top of the 8 5/8" casing there are worm holes due to rust
			and corrosion. Notify PB and Enterprise and we continue to drill. Drill 104' of cement for a total of
			119' from surface. Circulate the hole clean. Rig down the power swivel. Lay down 2 joints of tubing.
	1900	12	Close the well in. Shut down for the day.
			Safety Meeting: Hold safety meeting. Discuss working with the power swivel, picking up the tubing
			and collars, and good house keeping around the rig.
		Total 12	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/12/07	Report No. 4	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Moab
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Pick up 2 joints of tubing and start drilling at 119'. While drilling I
			received a call from PB and was told to stop drilling because we had no permit. We had drilled 62' of
	1000	3	cement for a total of 181' from surface.
1000			While waiting on the permit we will re-plate the casing. Rig down the power swivel. Trip out of the
			hole laying down the tubing and collars. Rig down the tubing tongs and remove the rig floor. Make
	1300	3	ready to dig around the casing and plate-in.
			NOTE: Backhoe and welder will be on location at 7:00 a.m. 7/13/07.
			Safety Meeting: Hold safety meeting. Discuss picking up the tubing and collars, rigging down the
			power swivel.
		Total 6	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/13/07	Report No. 5	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			The backhoe and the welder on location at 0700 hours. Dig around the well to expose the 8 5/8" and
			13 3/8" casing. Dress off the 13 3/8" and 8 5/8" casing. Weld a plate between the 8 5/8" and 13 3/8"
			casing. Weld a plate between the 7" and the 8 5/8" casing. Fill the hole back in around the well with the
	1200	5	backhoe.
1200			Install drilling spool, hydrill, and rig floor. Still have not got a ok on the permit. Install the night cap.
	1500	3	Close the well in. Shut down for the week end.
			NOTE: We were notified at 1700 hours that we had a verbal ok on the permit. The rig crew had
			already left for the weekend. Will continue drilling out the cement on 7/16/07.
			Safety Meeting: Hold safety meeting. Discuss digging around the well with the backhoe, and nipple
			up drilling spool and hydrill.
		Total	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/14/07	Report No. 6	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
			No Rig Activity
			Safety Meeting:

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/15/07	Report No. 7	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
			No Rig Activity
			Safety Meeting:

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/16/07	Report No. 8	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700	0800	1	Open the well and had no psi. Trip in the hole with 6 ¼" bit. Rig up the power swivel.
0800	1800	10	Start drilling cement at 181'. Drill to 438' for a total of 257' of cement drilled.
1800	1900	1	Circulate the well clean. Pull up in the clear. Close the well in. Shut down for the day.
			Safety Meeting: Hold safety meeting. Discuss trip in the hole, rig up power swivel, and drilling
			the cement.
		Total 12	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/17/07	Report No. 9	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Trip in the hole and start drilling cement at 438'. Drill cement to the
	1630	9.5	cement retainer at 644' for a total of 206' of cement.
1630	1700	.5	Circulate the hole clean.
1700			Trip out of the hole with the bit. Will change out the bit and pick up 2 more drill collars and trip back
	1800	1	in the hole on 7/18/07. Close the well in. Shut down for the day.
			Safety Meeting: Hold safety meeting. Discuss opening the well and watch pressure while opening,
			Tripping out of the hole, and standing back the drill collars.
		Total 11	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/18/07	Report No. 10	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
0700			Open the well and had no psi. trip in the hole with the 6 ¼" bit picking up 2 more drill collars on the
	0900	2	way in the hole. Rig up the power swivel.
0900	1030	1.5	Start drilling on the cement retainer. Cut approx. 6 inches of the plug and the pump stop pumping.
1030			Check the valves in the mud end of the pump and found one bad valve. Change out the valve and
			attempt to circulate the well but the pump still would not pump. Check the suction at the rig tank and
	1130	1	found the suction was covered with the cement cuttings. Could not get water to the pump.
1130	1400	2.5	Call for a water truck to clean rig tank.
1400	1530	1.5	Clean out the suction end of the rig tank. Fill the tank with clean brine.
1530			Start back to drilling the cement retainer. Drill retainer and then cement to 686'. Circulate the hole
	1800	2.5	clean. Pull up in the clear. Close the well in. Shut down for the day.
			NOTE: We should finish drilling the cement and CIBP on 7/19/07.
			Safety Meeting: Hold safety meeting. Discuss trip in the hole, picking up the drill collars, working
			on the pump, and rigging up the power swivel.
		Total 11	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/19/07	Report No. 11	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Trip in the hole and start drilling cement at 686'. Drill cement to 707'
	0900	2	and hit the CIBP. Drill the plug out and there was no flow and no gas.
0900			Rig down the power swivel. While rigging down the swivel the well started to flow. Stab the T.I.W.
			valve in the tubing and close the well in. Open the well up and flow gas and brine to the rig tank. Fill
	0930	.5	the tank with brine. Call out a water truck to pull some brine out of the tank.
0930	1030	1	Wait on the water truck. While waiting, finish rigging down swivel. There was 80 psi on the well.
1030			Open the well and bleed the gas off. The well made no more brine. Took approx. 30 bbls to fill the hole.
	1130	1	Circulate the well around. Flow down in the rig tank. The well is dead.
1130			Trip in the hole picking up tubing to 1547'. The hole is clean. Trip out of the hole standing the tubing
			back in the derrick and lay down 6—4 ¾" drill collars and bit. Install the night cap. Close the well in.
	1600	4.5	Shut down for the day.
			NOTE: Will run X-Y caliper on 7/20/07
			Safety Meeting: Hold safety meeting. Discuss drilling CIBP, what the well could do when the plug
			is drilled, picking up the tubing, and laying down the drill collars.
		Total 9	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/20/07	Report No. 12	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Jet West on the location at 0700 hours. Rig up the wireline unit. They had the XY caliper but no collar locator. Call for collar locator. Pick up the XY caliper and trip in the hole to 1580. Run a caliper log from 1580' up to 1400'. The bore hole was 40 inches at the casing shoe. Trip out of the hole and lay down the caliper tool.
	0900	2	
0900	1230	3.5	Wait on the collar locator.
1230			Pick up the collar locator and trip in the hole to 1550'. Run a collar log from the casing shoe to the surface. Lay down the collar locator. Rig down Jet West. Close the well in. Shut down for the day.
	1400	1.5	
			Safety Meeting: Hold safety meeting. Discuss rigging up the wireline unit, and working with the logging tools.
		Total 7	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/21/07	Report No. 13	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			Open the well and had no psi. The inflatable packer on location at 0700 hours. Make up the packer,
	0930	2.5	pick up and trip in the hole to 1469'.
0930			Attempt to set the packer. We pressure up on the tubing and it would hold a 1000 psi, but the packer
			element would not inflate. Work with the packer by pressure up 1000, 1200, and 1500 psi, but the
	1030	1	packer element would not inflate.
1030	1130	1	Trip out of the hole with the packer.
1130	1200	.5	Change out the packer.
1200	1300	1	Trip back in the hole.
1300			Attempt to set the new packer. We could pressure up on it but it would not hold pressure. Attempt to
	1400	1	Set and reset but nothing worked.
1400	1500	1	Trip out of the hole with the packer.
1500	1530	.5	Check the packer and make sure it was in the setting position.
1530	1630	1	Trip back in the hole.
1630	1700	.5	Attempt to set the packer. The tubing would pressure up but the packer element would not inflate.
1700	1800	1	Trip out of the hole and lay down the packer. Close the well in. Shut down for the day.
			NOTE: Order out another packer. We were told by Tam they would have the packer here Sunday
			evening 7/22/07. If it arrives we will run it on Monday 7/23/07.
			Safety Meeting: Hold safety meeting. Discuss picking up the packers, using the pump to pressure up
			On them, and tripping pipe.
		Total 11	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/22/07	Report No. 14	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
			No Rig Activity
			Wait on the packer. The packer arrived at 8:00 P.M.
			Safety Meeting:

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/23/07	Report No. 15	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Make up and pick up the packer. Trip in the hole and set the packer at
	0900	2	1477'. Fill the 7" casing with brine and close the hydrill.
0900	0930	.5	Install connections in the top of the T.I.W. valve for a gauge and chart recorder.
0930			Start pumping brine to pressure the well up. Pump approx. 850 bbls of brine to pressure the well up to
			357 psi. Shut down the pump. Hook up the chart recorder. Open the valve to the recorder and the
			pressure was 348 psi at 1900 hours. Start the recorder on well 2 at 0800 hours and the chart shows no
	1900	9.5	change while pumping up well 1. Shut down for the day.
			Safety Meeting: Hold safety meeting. Discuss trip in hole with packer, setting the packer, and
			pressure up the cavern.
		Total 12	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/24/07	Report No. 16	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
0700			Well was put on test at 1900 hours 7/23/07 and the pressure was 348 psi., at 0730 hours 7/24/07 the
			pressure was 248 psi. with a continuous drop on the chart, at 1230 hours the pressure was 223 psi. It
			was decided by PB and Enterprise to bleed the pressure off the well and pull the packer and run another
	1400	7	one to assure the packer was holding.
1400			We pumped approx. 850 bbls to pressure the well up and recovered approx. 225 bbls. Flow the well
	1700	3	down in the rig tank and haul brine to brine pond. Close the well in. Shut down for the day.
			Safety Meeting:
		Total 10	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/25/07	Report No. 17	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Pick up on the tubing to release the packer and was already loose. When
			we bled the pressure off the well the packer relaxed and turned loose. Trip out of the hole and lay
	0900	2	down the packer.
0900			Check the new packer and found that parts were missing from inside the packer. Order the parts from
			Houston, Texas. They are suppose to arrive in Moab somewhere between 6 to 8 P.M. today. Close the
	1400	5	well in. Shut down for the day.
			Safety Meeting: Hold safety meeting. Discuss trip out of the hole, and laying down the packer.
		Total 7	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/26/07	Report No. 18	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No.	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time From	Time To	Elapse Time	Details of Operation
0700	0900	2	Open the well and had no psi. Repair the packer, pick up and trip in the hole. Set the packer at 1469'.
0900			Start pumping brine to pressure the well up. Pump approx. 650 bbls of brine to pressure the well to
	1500	6	350 psi. Hook up the chart recorded and start the test at 1430 hours. Shut down for the day.
			Safety Meeting: Hold safety meeting. Discuss pick up and running the packer, pumping the well up
			with brine.
		Total 8	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/27/07	Report No. 19	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No. 997	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
0700			Check the pressure and the chart at 0700 hours, the chart hung up during the night, the gauge shows
			320 psi, a drop of 30 psi. in 16 ½ hours. Change the chart and continue to test the well. At noon the
			chart was flat and the pressure was still 320 psi. It was decided by PB and Enterprise to continue the
			test until Monday 7/30/07 at which time we will bleed the pressure off the well and pull the packer.
	1500	8	Continue test. Shut down for the day.
			Safety Meeting:
		Total 8	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/28/07	Report No. 20	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No. 997	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
			Change the chart at 0700 hours, the pressure was 304 psi.
			No Rig Activity
			Safety Meeting:

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/29/07	Report No. 21	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No. 997	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
			Change the chart at 0700 hours, the pressure was 300 psi.
			No Rig Activity
			Safety Meeting:

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/30/07	Report No. 22	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No. 997	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
0700			The cavern had 300 psi. Open the well and bleed the brine pressure to the rig tank. Harrison Oilfield
	1300	6	Service haul brine to the brine pond. Recovered approx. 360 bbls of brine.
1300			Release the packer and trip out of the hole laying down the tubing. Lay down 47 joints and the packer
			to finish out of the hole. Break down the packer and install the night cap. Close the well in. Shut down
	1500	2	for the day.
			NOTE: The sonar tools are here. Will run sonar log 7/31/07.
			Safety Meeting: Hold safety meeting. Discuss flowing brine to the rig tank, laying down the tubing.
		Total 8	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 7/31/07	Report No. 23	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No. 997	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
0700			Open the well and had no psi. Rig up Jet West wireline unit. Pick up Socon sonar tool and trip in the hole. Attempt to log down hole from 1510', the tool set down at 1535'. Trip out of the hole. Lay down Socon sonar tool and pick up the Dowell sonar tool. Trip in the hole to 1510'. Work with the tool and got it down hole. Run a sonar log down to 1642' T.D. The bottom of the cavern seems to have filled in.
	1430	7.5	Trip out of the hole and lay down the sonar tool. Rig down Jet West wireline.
1430			Remove the rig floor and hydrill. Install 2" valve in top of the well and close in. Rig down the rig and move away from the well. Shut down for the day.
	1600	1.5	
			Safety Meeting: Hold safety meeting. Discuss rigging up wireline unit, nipple down hydrill, and rigging down the rig.
		Total 9	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

PB Energy Storage Services, Inc.

Date 8/1/07	Report No. 24	PB Energy Storage Services	Reported By: Harold Drake	
Operator Enterprise Moab		Well Name & No. 1		
Contractor Key Well Service		Rig No. 997	County Grand	State Utah
Depth	Ft. Cut	Formation	Tops New Form.	

Activity at Report Time

Time Log From	Time Log To	Elapse Time	Details of Operation
0700			Move the rig and all rig equipment off the location and back to there yard. Load out all rental tools,
	1000	3	tubing and drill collars off location. Location clean.
			Safety Meeting:
		Total 3	

Pump Record			Hour Record		Bits		Mud		Drilling Assemble			Deviation	
Pump #	No. 1	No. 2	Hrs Trip		Bit #		Wt		No.	Description	Length	Depth	
Lin & St			Hrs Drlg		Size		Vis						
SPM			Hrs Misc		Mfg		WL						
GPM			Hrs DW		Type		Gels						
Press					Out		Oil						
					In		Solid						
					Ftg		pH						
					Bit Wt								

State of Utah
JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

Department of
Environmental Quality

William J. Sinclair
Acting Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

February 19, 2009

Buckeye 1
43-019-31474
T25S R21E Sec 35

Ms. Mary E. Hebert
Director, Field Compliance
Enterprise Products
P.O. Box 4324
Houston, TX 77210-4324

Subject: Approval of Facility Closure Report, Enterprise Products Operating LLC, Moab Storage Facility: Termination of Class V Underground Injection Control Permit UTU-191P-112F771 and Termination of Ground Water Quality Discharge Permit UGW190001

Dear Ms. Hebert:

This letter is to notify you that, effective immediately, the Utah Division of Water Quality (DWQ) has terminated the following permits that were issued to Enterprise Products Operating, LLC (Enterprise):

1. Class V Underground Injection Control Permit UTU-191P-112F771, and
2. Ground Water Quality Discharge Permit UGW190001.

The above-referenced permit terminations are based on the approved decommissioning and closure activities summarized below.

Class V Underground Injection Control Permit UTU-191P-112F771

Approval of Plugging and Abandonment Plans for Buckeye #1 and #2 Cavern/Injection Well Systems. On July 12, 2007, DWQ issued an approval letter to Enterprise after reviewing the revised plugging and abandonment plans for the Buckeye #1 and #2 deep liquefied petroleum gas (LPG) storage wells after confirming that the comments and concerns articulated by DWQ in its letter dated March 27, 2007 were adequately addressed.

Submittal of Certifications and Plugging and Abandonment Reports for the Enterprise Buckeye #1 and #2 LPG Storage Wells. In late October 2007, Woodrow Campbell of the DWQ Ground Water Protection Section was on site to witness the plugging and abandonment of the Buckeye #1 and Buckeye # 2 LPG storage wells. On January 11, 2008, DWQ received a letter of transmittal from Wally Swartz, Project Manager of PB Energy Storage Services, Inc., with the plugging and abandonment reports for the Buckeye #1 and #2 LPG storage wells. Each report included a Certification signed by Elmer L. Brown, Field Supervisor of PB Energy Storage Services, Inc. dated January 3, 2008.

Ground Water Quality Discharge Permit UGW190001

Submittal of Draft Facility Closure Plan. In accordance with Ground Water Quality Discharge Permit UGW190001, Enterprise submitted a facility closure plan to DWQ on February 8, 2008. After reviewing the Draft Facility Closure Plan, Woodrow Campbell of the DWQ Ground Water Protection Section issued a DWQ Conditional Approval letter to Ms. Mary E. Hebert of Enterprise on February 28, 2008, indicating that the asphalt liner in pond 1 had to be removed and properly disposed offsite.

Plugging and Abandonment of Ground Water Monitoring Wells. On June 13, 2008, Woodrow Campbell of the DWQ Ground Water Protection Section was on site to witness the plugging and abandonment of the three four-inch PVC ground water compliance monitoring wells used to monitor the brine ponds. The wells were plugged and abandoned by a Utah Licensed Water Well Driller (License No. 807) in accordance with UAC R655-4-12, *Abandonment of Wells*. The well abandonment reports are provided in Facility Closure Report described below.

Facility Decommissioning Activities During the same week of the monitoring well abandonments, Woodrow Campbell of the DWQ Ground Water Protection Section also witnessed the following facility decommissioning activities:

- removal and disposal of part of the asphalt liner from brine pond 2;
- stockpiles of piping and other materials that would be transported off site for recycling or disposal;
- back-filling and grading of the site.

Submittal of Facility Closure Report. On November 18, 2008 DWQ received the Facility Closure Report for the Enterprise Products Moab Storage Facility, Ground Water Discharge Permit No. UGW190001, under cover letter from Mary E. Hebert, Director of Field Compliance. The Facility Closure Report included the decommissioning scope of work, a description of the decommissioning process and activities, and appendices including well abandonment reports, waste recycling and disposal documentation, and photographs of facility decommissioning activities.

Final Inspection and Approval of Facility Closure Plan. On January 23, 2009, Woodrow Campbell of the DWQ Ground Water Protection Section conducted a final inspection of the facility. Based on the results of the final inspection, the Facility Closure Report is hereby approved.

Request for Termination of Permits

In a letter dated February 2, 2009 from Mary E. Hebert, Enterprise requested that Class V Underground Injection Control Permit UTU-191P-112F771 and Ground Water Quality Discharge Permit UGW190001 be terminated.

Based on the final facility inspection and approval of the Facility Closure Report, DWQ has terminated Class V Underground Injection Control Permit UTU-191P-112F771 and Ground Water Quality Discharge Permit UGW190001, effective immediately.

We appreciate the diligent efforts and cooperation of Enterprise during the decommissioning and closure of the subject facilities. If we can be of further assistance, please contact Mr. Woodrow Campbell at wwcampbell@utah.gov or (801) 538-6067.

Sincerely,

Utah Water Quality Board

Walter L. Baker, P.E.
Executive Secretary

WLB:RFH/wwc

cc: Claron Bjork Southeastern Utah District Health Department
David Ariotti, Southeastern Utah District Engineer
Dan Jarvis, Division of Oil, Gas and Mining
Mark Wright, Grand County Engineer

WLB/RFH:wc

Wcampbell/wp/enterprise/closure report approval and permit termination letter.doc